Instrument for Psychosocial Assessment of Child Workers (IPAC)

Background and references

Acknowledgements

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The Committee notes the growing body of theory and research which confirms that young children are best understood as social actors whose survival, well-being and development are dependent on and built around close relationships."

United Nations Committee on the Rights of the Child

A balance model is not just valuable for researchers. Its practical significance has also been demonstrated in studies that ask children themselves to weigh-up the 'costs' and 'benefits' of their work. Recognition of the centrality of children's own accounts of 'hazard' and 'impact' in policy development leads to the final model."

Martin Woodhead

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Introduction

Child workers' health, especially psychological health, still receives comparatively little attention from either researchers or practitioners compared to other aspects of child labour.[1] In order to gain a fuller understanding of the implications that work has for a child's psychological functioning and development, the International Labour Organization (ILO) commissioned the development of an instrument that could be used to document the effects. The purpose of this paper is to present the research evidence on which each of the questions in this instrument is based and to show how the instrument incorporates, builds upon and expands on existing tools and concepts. It is also intended to serve as a reference that can facilitate further work on this subject or as a quick review of research and instruments in this field.

The structure of the paper is as follows:

Part I presents the "Instrument for Psychosocial Assessment of Child Workers" (IPAC) in its current form along with a brief description of how and why it was developed. It presents the models, concepts and theories which are central to the overall framework of the IPAC. These sources are presented with a short introduction followed by a list of particularly salient points and a commentary on how these were incorporated in the instrument and/or the procedures for its use. This is followed by an explanation for each domain, and the questions within it, referencing the theoretical models presented earlier. Finally, this section presents the recommendations from a 'Working Group on Psychological Impacts of Child Work' – consisting of 13 specialists who had previously done research on the psychological impacts of child labour -- which provided input in the context of the "*Technical Consultation on Children and Youth in Hazardous Work*" organized by the ILO in 2011 at the ILO International Training Centre in Turin, Italy.

Part II is a reference. It lists the studies which, in the course of the preparation of the IPAC, were deemed to be particularly relevant to the study of child workers' psychological health and development. These are presented in three categories: those deriving from child psychology, those from occupational psychology (largely compiled by Drs. Leka and Jain), and those which combine the two fields. The emphasis here is on the domains and indicators used in these studies.

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[1] Estimates of the numbers of child workers, economic and educational analyses of child labour and legal studies have all received many times more attention than have the health aspects of child labour.

PART I
THE IPAC TOOL

The Instrument

The *"Instrument for the Psychosocial Assessment of Child workers" (IPAC)* is a questionnaire which examines twelve domains deemed relevant to child work that can be answered using a four point Likert scale. These domains are: self-esteem, stress, personal agency, relationships, sense of safety/protection on the job (supervision and training), leisure, emotions, somatic factors, chronic fear and anxiety, sense of hopefulness or helplessness, social characteristics, abuse and maltreatment. It is most appropriately used with children who have at least one year of work experience and whose understanding is sufficiently developed that they can form opinions about this experience, i.e. children between ages 10 and 18.[2]

It is not a stand-alone tool, but instead intended as a module within a larger study or otherwise accompanied by questions that gather information on:

a) basic demographic characteristics (age, sex, ethnicity, origin, migratory status)
b) educational experience (enrolment, level, attendance, school performance, type of school)
c) work history (age starting work, duration and timing of work).

Psychological information can be further enriched by observational data on the actual tasks carried out by children differentiated by age and sex, and clinical information on injuries, nutritional status, and weight for height. Where the work involves exposure to chemical agents as in agriculture (pesticides), repair shops (lead), mining (mercury) and similar substances which affect cognitive functioning; additional clinical tests may be extremely valuable. A non-working control group can help in distinguishing those factors which are work-related from those which derive from other sources, such as school.

Prior to using the IPAC, it is strongly advised to conduct basic qualitative work at the proposed study site to ascertain what adaptations may need to be made in wording and selection of items.[3]

The full IPAC instrument of 48 questions is presented below (non-working control groups would receive only the highlighted portion). A short form of IPAC for survey use plus recommended qualitative questions are available in the Annex. To assist younger children in answering the questions, a visual device is used – a glass of water filled to varying levels -- to represent the four different rankings on the Likert scale.[4]

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[2] While IPAC is recommended for this age group, it has been used with younger children with adaptation.
[3] A number of guides for qualitative preparatory work are available, cf. the SAFE toolkit.
[4] Pictograms developed by Healthnet TPO.

	1	2	3	4
	Always	Often	Sometimes	Never

Indicators	Scale			
	1	2	3	4
1. Are you proud of your work?				
2. Do you feel like you have the skills needed to do your job well?				
3. Do you think others appreciate the work you do?				
4. Do some people look down on you because of the kind of work you do?				
5. Do you feel that your family relies on you and needs your help?				
6. Do you feel under pressure to work faster and harder?				
7. Do you feel bored because there is not enough to do?				
8. Does your family, employer or others ask too much of you?				
9. Do you get bored at work doing the same thing for many hours in a row?				
10. Do you feel tired because of the long working hours or heavy work load?				
11. Do you feel like your work prevents you from doing things you would like to do?				
12. Do you feel that, if you wanted to, you could choose what to do and what not to do?				
13. Does the environment in which you are working bother you at all?				
14. Are you comfortable with the people you work with?				
15. At work, do you feel that people watch over you to make sure you don't get hurt?				
16. Do people at work teach you what to do and how to do it?				
17. Do you have free time each day to do just what you want?				
18. Do you have lots of energy?				
19. Do you generally feel pretty confident?				
20. Do you have any difficulty sleeping?				
21. Do you have trouble concentrating?				
22. Do you feel restless and cannot stay still very long?				
23. Do you feel sad and like crying?				
24. Do you get into fights or quarrels easily?				
25. Do you feel lonely?				
26. Do you get very angry and often lose your temper?				
27. Do you have little appetite or interest in food?				
28. Do you find that you forget things?				
29. Do you feel tension in your body?				
30. Do you feel dizzy?				
31. Do you feel afraid or nervous?				
32. Do you worry and think a lot?				
33. Do you think a lot about bad things that have happened to you in the past?				

Indicators	Scale			
	1	2	3	4
34. Do you think your life will get better some day?				
35. Do you think your life is worse than that of other children?				
36. Do you think life isn't worth living?				
37. Do you have loving support from your family?				
38. Is there conflict in your family?				
39. Do you feel accepted by the other families around here?				
40. Do you have one or more good friends that support you?				
41. Do people reject or tease you or call you names?				
42. Do you play games or sports with friends?				
43. Do you feel very different from other children your age?				
44. Do you get scolded, or criticized or made to feel small or stupid at work?				
45. Do you ever get beaten at work?				
46. Has anyone at work tried to touch you in a bad way?				
47. Have you been severely punished for mistakes made at your work?				
48. In your day-to-day life do you feel safe?				

Purpose and objectives of IPAC

IPAC was developed as a way to raise the curtain on an area of child suffering, or alternatively, child strength that has been hidden for too long. Without a practical means to investigate psychosocial factors, researchers and practitioners have viewed working children mainly in terms of their legal, educational or physical status, and not surprisingly, designed policies and programmes accordingly. IPAC was designed as tool that would not require administration by a professional psychologist (often unavailable in remote areas), and which can be used with population groups in the context of baseline or other project studies. Its purpose was to gain a more complete view of the needs of working children by examining psychosocial risks, and in the context of controlled studies, to understand more about the psychosocial consequences of work, both positive and negative.

The need for such a tool is evident. You can see if a child is going to school or not, and you can see any physical wounds s/he might have, but it is not so easy to see psychological bruises which are largely invisible to the untrained eye. Although virtually everyone acknowledges that child work can pose psychological risks, and many also point out its psychological benefits, this is based more on common sense than rigorous research. There are many questions: What are the psychological risks? How serious are they? Worse for boys or girls, for younger or older children? More serious than physical risks? How do the risks vary between different types of work? What impacts might result and how likely are these to occur? Are there factors which might mediate or protect children from the risks? How do the risks weigh against potential benefits?

Without answers to these questions, it is not possible to go the next step – ultimately the most important – which is to identify situations of high risk to children's mental, emotional, or social development. Equally critical is to identify factors which protect or are beneficial to working children as well-meaning child labour elimination measures may inadvertently undercut these coping mechanisms and actually increase the vulnerability of the working child. Policy, legal action, care, treatment, and inspections all depend on having solid, credible and verifiable information about psychosocial risks and outcomes from the specific perspective of working children.

Gaining information about child workers' health has long been handicapped by a set of unique challenges. While there is extensive practical and theoretical work in each relevant field – in psychology, in paediatrics, and in occupational health -- it is these three fields in **combination** which is virtually unaddressed. Of the various reasons for this; four are particularly noteworthy. First, while factors associated with work, with mental functioning and with childhood are relatively easy to study separately, when they occur together, it becomes more complicated as they may generate synergies, and may compound or counteract each other. Second, unlike adults, children are in a state of rapid development. Girls and boys are changing at different periods and rates, and younger children are very different from adolescents, hence a single approach or tool will not suffice for all. Third, children may express or manifest psychological damage or psychological benefit in different ways according to their culture. Last, it is hard to know whether the benefit or the damage stems from the work or from other factors in the children's environment.

While it is essential to seriously consider these hindrances, it is also essential to try to find means of overcoming them. There are still an estimated 168 million children throughout the world who do work inappropriate for their age. Some proportion of these – 25%? more? – may be at risk of long term psychological damage because of the kind of work they do or the conditions in which they work. In the future, all studies of child labour should include a module on psychosocial risk assessment, and all projects to address child labour should include a component to counteract or eliminate the major sources of psychological stress in addition to their other measures.

Background to IPAC

For at least three decades, there have been periodic calls to investigate the psychosocial health of child workers.[5] To move this forward, the Bureau of International Labor Affairs, Department of Labor, of the U.S. Government provided a grant to the ILO in 2009 to support research on the health effects of child labour as part of a broader effort towards the effective identification and measurement of hazardous work by children. Noting that the psychosocial impacts of hazardous child labour were not being adequately studied, guidance materials were not available, and possible psychosocial damage was seldom taken into consideration when designing interventions, the project proposed to create tools to document hazards and health outcomes. It was hoped these would clarify the boundaries between acceptable children's work and child "labour" (work which puts children's health or education at risk) and help in targeting and evaluating interventions, as well as in the case of children over the minimum age for work, guide the design of risk reduction measures.

Another very important use was for policy guidance since countries which have ratified ILO Conventions No. 138 and No. 182 are obligated to prepare the "hazardous child labour list" (the work to be prohibited for persons under 18 years). The presence of physical, psychological or moral hazard determines whether a type of work is permissible for children over the minimum age of employment; for them, the extent to which an identified risk can be reduced determines whether a type of work is to be prohibited as child labour or encouraged as youth employment."[6] If psychological risk is not investigated or considered in the determination process, certain types or conditions of work for which there is negative psychological impact but no physical negative impact may continue to be allowed.

Over a five-year period, ILO worked with experts in the fields of occupational psychology, child psychology, and child labour to develop and test a methodology for assessing psychological well-being of child workers. This process has been described more fully in the document entitled "*Development of an instrument for the psychosocial assessment of child workers*,"[7] but the key steps are as follows.

Steps in development of the IPAC

Preparatory reviews.

1. **Review of ILO resources**. Prior to launching its work on this topic, ILO looked to see what material it already had available. There were three documents of particular note: a) a chapter

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[5] c.f. World Health Organization. 1987.
[6] ILO-USDOL, 2009 *Follow-up to the resolution on child labour statistics adopted at the 18th ICLS through the methodological development and expansion of child labour data*
[7] Gunn, S., et al. 2012

by Dr. Judith Ennew in the ILO's 1995 rapid assessment manual, "Finding Out About Child Labour … Quickly"[8] where she had proposed a series of tests that "look for a few basic and general indicators", b) an ILO blueprint for labour inspectors on psychology and child labour by Catherine Boidin, also from 1995; and c) a particularly seminal conceptual paper by Martin Woodhead that was commissioned and published by the joint UNICEF-ILO-World Bank programme, "Understanding Child Work", in 2004. What seemed to be preventing these excellent documents from being translated into action in field programmes was that practitioners seemed unsure as to how to do so.

2. **Review of occupational psychology literature**. In 2010, Dr. Stavroula Leka, who headed the *Technical Working Group on Psychological Impacts of Work* in the World Health Organization's Collaborating Center network, and Dr. Aditya Jain of Nottingham University were commissioned by ILO to examine the field of occupational psychology for methods, theory and existing instruments that would be relevant for working children. Their comprehensive document,[9] which is described later in this volume, outlined a procedure for further developing psychological concepts and assessment tools to document children's occupational health. They urged caution in trying to use most existing validated tools as, not only were they developed for use with adults, but also with the formal enterprises of industrial countries in mind. The challenge they saw was how to take into account developmental stages of young persons, which vary considerably between the age of 5 when some children start work, to age 18 when they are still maturing in terms of growth and judgment. However, they concluded that a number of the instruments might still prove useful as a starting point.

3. **Review of literature in child psychology**. At the same time, Martijn R. Hofman undertook a similar review for the field of child psychology. This exercise yielded an annotated bibliography[10] and an exhaustive analysis of key components of child development and functioning as pertains to work. He expanded the search to look not only at publications but also grey literature and networks which could be useful in identifying additional initiatives or in disseminating results. He identified and interviewed resource persons who were conversant both with psychology and child labour and explored the utility of forming a 'community of practice'.

Expert consultations

Early in 2011, a Working Group of 13 specialists who had both expertise in psychology as well as having done research on child work were invited to meet together in Turin, Italy to examine the above reviews, and on the basis of these and their own experience, to assess which existing research tools could be used with child workers or at least adapted. The group reached a consensus, however, that while there was a good theoretical foundation (most notably the work by Woodhead), the existing tools did not meet the criteria needed for the child worker population. They proposed that a new tool be designed and validated which was more fully grounded in this theory. The Working Group proceeded to identify indicators that should be included in the instrument, the methods it should employ, and some models that might be fruitful to incorporate (for example, the SAFE Framework developed by Theresa Betancourt, and the concept of child resilience). They

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[5] ILO, 1995.
[9] Leka, S. and Jain, A. 2011
[10] Hofman, M.R. (2010).

recommended that all questions must be validated, that comparison groups be included in every study in order to correctly gauge psychosocial stress against a local baseline and that the home environment as well as the work place needed to be studied.

Throughout subsequent steps – the drafting and testing of the instrument, and review of findings – the Working Group has been called on to provide comment and critique, and individual members have done so.

Draft instruments

1. **Initial version – PVAT**.   HealthNet TPO, with its headquarters in Amsterdam, The Netherlands, experienced in assessing psychological variables with respect to child soldiers, then took responsibility to fashion these recommendations into an instrument which could be pilot-tested. It proceeded by first reducing the list of all possible domains and categories to those which were likely to be most critical for child labour through a priority-setting exercise with child labour specialists.   There were three validation exercises in all, and the results compared with other existing measurement tools (SDQ, WHO-DAS, etc.)   This initial instrument was called the "Psychosocial Vulnerability Assessment Tool" (PVAT).

   The first test was carried out by Healthnet in two districts of Punjab, Pakistan in the spring of 2011 with child workers in 10 occupations (n=1,996) and non-working controls (n=464). For the pilot tests, the tool, originally developed in English, was translated into Urdu, and then back translated to check the accuracy of the translation. The final version was administered by trained enumerators to working children and to the non-working control group of children enrolled in schools. When testing differences between the groups for each of the psychosocial indicators, t-test analyses were conducted to compare scores between one sector as a sub-group and the other sectors combined.

   A field-test was then carried out in Nepal by Healthnet to generate further indicators of psychosocial wellbeing among child labourers and to rank them. Participatory group discussions were conducted with Nepali working children (n=27), ranging in age from 8 to 16 and representing different sectors of child labour (stone-breaking, domestic service, street work). Items derived from this and the previous work were compiled, resulting in a list of 66 possible questions, which were organised in different categories through pile-sorting.   A second validation study was then conducted among Nepali child labourers (n=180) and non-working peers matched for age, ethnicity and locality (n=180) to reduce the items to those most relevant and indicative of good psychometric properties.

2. **Second version - PAT*cl***. Based on these pilots, the selection of items was again revised. This was done through a two-staged process. First, items were selected through exploratory factor analyses (principal components) generating a three factor structure. Second, all individual items were correlated with relevant constructs (symptoms of depression, sense of hope, impairment in daily functioning). Items included in the prior step were omitted if correlation was <.30, items not selected in the previous step were still included if there was a correlation >.40 on one of the three constructs of comparison. As before, t-test analyses were conducted to compare scores between one sector as a sub-group and the other sectors combined. The revised instrument, labelled "Psychosocial Assessment Tool for Child Labourers" (PAT*cl*), contained 25 items and was designed for inclusion as a module in a larger survey that provided essential demographic and

sociological data, as well as a description of the work, and the work history of the children concerned. Applicable to various types of work, it took into consideration not only the work environment but also the school, community and home environment, and contained three subscales: a) *Psychosocial distress*, composed of both interpersonal and intrapersonal manifestations of distress; b) *Social participation and integration*, consisting of participation in social activities and feeling supported by others; and c) *Personal agency*, which consists of a sense of control over the situation and pro-social behaviour.

When tested, the PAT*cl* demonstrated good psychometric properties. *Internal reliability* of α=.87 for the entire scale (and α=.85, α=.91 and α=.81 for the three subscales, respectively). *Convergent validity* was demonstrated as the instrument correlated, as expected, with symptoms of depression (*r*=.65), with sense of hope (*r*=. 55), and with impairment in daily functioning (*r*=.49). Similar values were found in the Nepal test when the control sample of non-working peers matched for age, gender, location and ethnicity was included (n=360): (*r*=.61, *r*=.58 and *r*=.45, respectively). A shorter version, the PAT*cl-8,* consisting of eight items drawn from PAT*cl,* was developed for inclusion in large-scale surveys where interview time is at a premium.

3. **Third version – IPAC**. An additional round of review and critique plus discussions with members of the Working Group led to further improvements in the instrument. The primary change was the addition of more questions focused on work-related variables. This version, with 48 items, was labelled, "Instrument for the Psychosocial Assessment of Child workers" (IPAC).
The IPAC was used in a four country study of children working in brick kilns which was undertaken in 2013. In this study, the psychosocial well-being of 1,794 children (878 working children, 916 controls, and 174 youth[11]) was measured, yielding 1,608 valid responses. A factor analysis and more extensive statistical tests (K means, ANOVA, etc.) were employed in the analysis of the results and to test the reliability of the instrument. The questionnaire was then adjusted, eliminating those items which showed little variation, to produce an instrument of 40 items.[12] The psychometric analysis of this questionnaire showed that it possessed good internal coherence (alpha de Cronbach =.808) and that it functioned well for this group of four study countries (alpha Pakistan =.738, alpha Afghanistan =.840, alpha Nepal =.707, alpha Bangladesh =.867).

Future steps

An essential next stage is to undertake controlled studies in other occupational sectors using this instrument, particularly those which have sufficiently large child labour populations. It also must be used in other cultural settings, as even measures of internal consistency and other indicators of reliability do not guarantee cultural validity or contextual appropriateness.[13]

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[11] Youth were 18 – 24 years of age who had been working in the kilns for at least two years before they reached age 18

[12] The items eliminated were questions 2, 4, 18, 19, 34, 37, 39, and 48. (two additional questions had to be eliminated in the brick kiln study as one country did not include them)

[13] Theresa Betancourt, personal communication. 9/2015

Concepts and models

This chapter presents the main concepts and models which were used in framing the psychosocial instrument. These include publications as well as points made in the various expert consultations with regard to these models. Summaries cannot begin to do justice to the richness of either the original publications or the subsequent discussions; nevertheless, they attempt to highlight points which may be helpful for others in understanding the content and construction of the final IPAC instrument. Every effort has been made to avoid altering or adding new interpretations to the original texts so that the authors' meaning and recommendations remain clear.

Woodhead: The 'Balance' Model

Dr. Martin Woodhead prepared a series of seminal papers which outlined "a conceptual framework to assess the multiple ways in which work can impact (both positively and negatively) on children's well-being, and which identify psychosocial indicators of impact."[14] These have drawn attention to the different ways in which the context of children's work determines the extent to which potential hazards constitute a risk to them, and present a theoretical model that links characteristics of work to evidence of impact on children's psychosocial well-being. It is Woodhead's model which provided the major direction and substance for the IPAC instrument and the studies in which it was used. Some of the key points from the Balance Model are:

- Child work has diverse realities and can both be an asset and a hazard, for them as well as for their families. Therefore, approaches which exclusively focus on the hazards of child work and perpetuate the perception that work is inherently damaging to children should be avoided.

- Instead of seeking global indicators, or examining a specific occupational sector, or focusing just on the work in a child's life, a more appropriate approach is centred on the child and the child's whole context. In this way, the core question becomes: *"Which children - in which kinds of work - and in which situations - are most at risk of being harmed by their work?"* The extent to which children are at psychosocial harm may vary considerably between occupational sectors as well as within sectors. Their work might not even contain the psychosocial factors that are most significant, as there are various kinds of causal pathways and links between psychosocial factors and health of children. This requires a wider assessment of the hazards and the child's situation which includes the value placed on their work, the alternatives available to them and their families, as well as their realistic long term prospects.

- It is important to distinguish between hazards, risks and harms, i.e. identifying if a hazard is present, the risk or likelihood that children will be affected by the hazard, and whether the children are actually harmed.

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[14] Woodhead, M. 2004

- Children's *dispositional characteristics and general health* are important factors that could function as a buffer against the effects of adversity…or alternatively, could compound them. This is related to the concept of a child's personal resilience, and includes not only personal characteristics, but also positive and negative coping styles, and the resources available in the environment that can help children to cope with a given situation.

- Children are not "passive victims", but *social actors* in their own right who are trying to cope and make the best of their environment. Perceiving children as social actors is a concept that is also closely linked to children's personal agency (related to concepts of internal versus external locus of control). In other words, children shape their working life (to some degree at least), at the same time as being shaped by it.

- Children actively assign meaning to their work. In many cases it becomes part of their identity. Judgments made by an observer about possible risks or benefits of work may not coincide with how children themselves perceive those influences. To some extent at least, children define what affects them through processes of selective attention and interpretation.

- It is important to consider the child's stage of development (young child, pre-adolescent, youth?) as well as what stage they are in their work-life (newly initiated into work? seasoned workers?)

- The personal and cultural meanings and values children themselves ascribe to their work experiences are one of the factors that will moderate its impact. In addition, the *cultural beliefs and expectations* of those surrounding them regarding the value of children's work, goals for their development and indicators of well-being will strongly mediate children's perspectives on and experiences of work, and in turn its positive or negative impact in their lives.

- Psychosocial toxins (verbal abuse, humiliation, physical abuse, etc.) combine in a cumulative way which is not only additive but multiplicative. These may be difficult to identify due to the fact that children may try to disguise their feelings, or be unaware of them.

Psychosocial dimensions of child work

Influence on wellbeing	Major positive influences	Major potential hazards
Secure relationships and consistent settings	Stable environment, predictable routines; changes occur in context of supportive relationships	Breakdown of social networks, emotional bonds; disruptions to familiar surroundings without supportive relationships
Activities and guidance	Progressive participation in socially valued activities, skills and responsibilities under sensitive, consistent guidance	Not stimulating, monotonous activities; induction into inappropriate behaviours, e.g. crime, drug abuse, peer exploitation
Responsible adults	Positive, consistent and considerate treatment; respectful of children's integrity	Negligent, inconsistent, harsh treatment; emotional abuse, humiliation and discrimination; physical and sexual abuse
Peer support and solidarity	Opportunities for positive peer relations and mutual support	Isolation from or rejection by peers; bullying, violence, stigmatization.
Physical environment and	Safe, healthy environment with	Adverse working conditions; accidents, ill-health;

daily schedules	appropriate balance of work, learning, play and rest.	exposure to toxins with psychosocial effects; excessive workload
Contract with employers	Appropriately regulated situation with adequate protections	Financial and job insecurity; lack of legal or other protections; powerlessness in face of exploitation
Work and family lives	Expected contributions respectful of children's interests and well-being	Unreasonable parental expectations; coercive treatment; collusion with employers
Other factors affecting the impact of work	Positive opportunities for participation in school and other community settings; basic economic and social security, political stability and social justice	Incompatibility of work versus school demands; social exclusion, stigmatization, e.g. by teachers, police, or others in authority; acute poverty, political/social upheaval, social injustice and exclusion

Source: Woodhead, M. (2004).

The indicators that Woodhead recommends to be included in studies of working children's psychosocial well-being are:

- Age of starting work
- Sex
- Social status and ethnicity
- Intensity of engagement with work (everyday, same jobs or different jobs; as a central or peripheral element in the child's life)
- Work takes place in isolation or in groups; is visible or not
- Treatment by the employer
- Family circumstances
- Opportunities for school and for future employment
- Training, regulation and supervision of the child's work
- Self-esteem

Domains most relevant to assessing psychosocial impact of child work

Psychosocial and development impact	Key Issues
Cognitive abilities and cultural competencies	Intelligence; communication skills ; technical skills
Personal security, social integration and social competence	Secure attachments; positive adult/peer relations; social confidence; sense of belonging
Personal identity and valuation	Self-concept; self-esteem; feeling valued and respected
Sense of personal agency	Self-efficacy; feelings of helplessness; internal locus of control; positive outlook
Emotional and somatic expressions of well-being	Stress levels; sleeping and eating patterns; general health; disrupted concentration; anxiety and depression

Source: Woodhead, M. (2004)

Woodhead sees a great need for more studies that document the longer-term impacts of child work. These can be quantitative or qualitative, but preferably cross-national. While longitudinal tracer studies would be particularly good, they require time and resources. Thus, there is a role for cross-sectional studies of immediate impacts which would be helpful in informing and influencing policy makers by documenting children's ongoing experiences and current well-being as well as suggesting areas of possible long term impact. However, they cannot be expected to determine conclusively causal relationships between work and psychosocial outcomes.

Leka & Jain: A Framework for examining psychological aspects of child work

Focusing on the field of occupational psychology, Drs. Stavroula Leka and Aditya Jain prepared a comprehensive review entitled, *"Assessing psychosocial hazards and impact of child work."*[15] This document was used as a discussion document and background paper for a meeting of experts organized by ILO, the "Technical Consultation on Research Methods for Hazardous Child Work" that was held in Turin, Italy, 31 Jan to 2 February 2011. Leka and Jain review a wide spectrum of research, analytical models, and tools from the occupational health sector and select those which they judge to have potential for use with child workers. They raise several cautions, however: first, due to the nature of child work it is difficult to develop one "gold standard"; second, children's physiological and psychological immaturity contributes to increased health risks and vulnerability to abuse; and third, there have been considerable problems in the past in attempting to define and measure the impact of child work on psychological health. Nonetheless, Leka and Jain feel that some parallels between the "adult and the child world" can be drawn and existing materials can be used as a guideline for future research. The report focuses almost exclusively on the detrimental effects of child work.

In making their recommendations for a future instrument for child workers, Leka and Jain drew on their own previous work in occupational psychology, as well as other models, two of these are described below: the *Dual Hazards-Harm Model*[16] and their model on occupational stress*.* (Others which they drew upon as well are described later in the document under their own headings.) They have incorporated these into a new, comprehensive model based on that of Kompier and Marcelissen[17] which they entitled, the "*Causes/Consequences Model of Psychological Impacts of Child Work*."

A key component of this comprehensive model is the *Dual Hazards-Harm Model.* It looks at health and development within a larger ecological framework that is influenced both by direct and indirect psychosocial and physical factors. These interact and generate different outcomes. Key points from the "Dual pathway hazard-harm model" are:

- The nature of the work, the work environment, the socio-economic status, educational level, and culture of the families and the children (SEC) are *interrelated influential spheres,* hence, a linear relationship cannot be drawn between the work situation in which the child worker finds him- or herself and the (psychosocial) health outcomes

- A *dynamic, reciprocal interaction* is taking place between the physical and the psychosocial elements in the work environment, which could both have an effect on the health of the child

- Physical environment, but also in an indirect way when it is mediated by a sense of stress.

A diagram of the "Dual pathway hazard-harm" model is presented below:

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[15] Leka, S. and Jain, A. 2011.
[16] Adapted from Cox, T., et al. 2000.
[17] Kompier and Marcelissen, 1990

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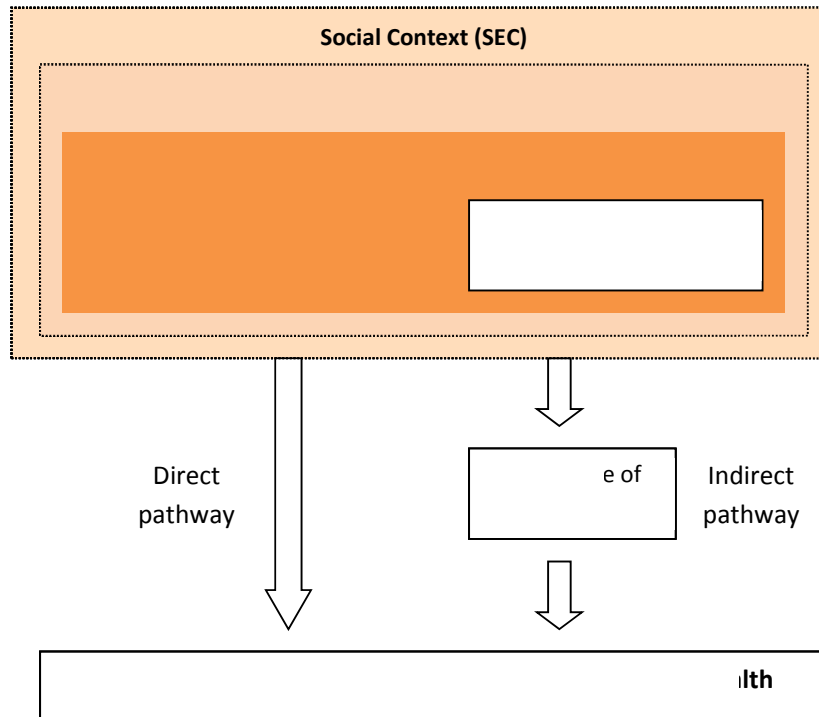
Source: adapted from Cox, Griffiths and Rial-González (2000)

To show how psychosocial hazards contribute to work-related stress, Dr. Leka et al have prepared the following table. Core components relate to the design and management of work and its social and organizational contexts that have the potential to cause psychological or physical harm. The table lists the relevant domains and the indicators which pertain to each.

Psychosocial hazards and work-related stress

Domains	Indicators
Job content	Lack of variety; lack of creativity; fragmented or meaningless work; stigmatization; quality stress (failures, mistakes); lack of opportunities for development
Workload & work pace	Work overload or under load; high levels of time pressure; repetitive work tasks
Work schedule	Shift working; night shifts; inflexible work schedules; unpredictable hours; long or unsociable hours; breaks and days off work
Control	Lack of control over workload; shift working, etc.
Environment & equipment	Inadequate equipment availability, suitability or maintenance; poor environmental conditions such as lack of space, poor lighting, excessive noise, exposure to chemicals
Interpersonal relationships at work	Social or physical isolation; poor relationships with superiors; interpersonal conflict; lack of social support; harassment; third party violence
Precarious working conditions	Poor pay/rewards; job insecurity; low social value to work
Life-work interface	Conflicting demands of work and home; low support at home; breakdown of social networks; disruptions to familiar surroundings; disruption in education/schooling; heavy burden of responsibility for family and siblings; orphan hood; abuse at home

Source: adapted from Leka, Griffiths & Cox (2003)

From among the various concepts and tools they analysed, Leka and Jain derived a list of indicators that they feel should be included in a future instrument as well as the methods by which these

indicators should be applied. The indicators combine *psychosocial hazards*[18] with *psychosocial impacts* along with a third component, the concept of *resilience.* The final list of indicators, adapted from Kompier & Marcelissen),[19] includes the psychosocial hazards, stress reactions, long-term consequences and individual characteristics that influence each other and which contribute to psychological impacts of child work.

Bringing the hazards and impacts, as well as the protective/resilience factors together, Leka and Jain's comprehensive model depicts the relationship between categories of psychosocial hazards and long-term psychological/social and physiological/physical consequences (mediated by stress reactions and individual characteristics).

This model shows the effects of psychosocial hazards on (short-term) stress reactions (cognitive, emotional, behavioural and physiological reactions) of a person, or for this case the child worker, and the interactions that are taking place between individual characteristics and those stress reactions. The model indicates for example that the age of a child determines the capability of the child to handle certain stressors/hazards (generally speaking, as is also indicated in the literature, the younger a child is the less stress-resilient he or she is). Or in the case of gender, girls may be more vulnerable for certain hazards in particular situations (as sexual abuse) than boys and it is also more likely that they have stress reactions.

Most important also is that the model puts an emphasis on a *cyclical approach*. The long-term consequences are affecting the child's individual characteristics, (although gender and age will not be affected obviously, level of education can be affected as well important other individual characteristics such as personality). This aspect could in turn increase the vulnerability of the child for certain psychosocial hazards and heighten stress reactions.

Model of causes and consequences of psychosocial hazards and impact of child work

Psychosocial hazards	**Stress reactions**	**Long term consequences**

• Job content
 • Workload & work pace
 • Work schedule
 • Control
 • Environment & equipment
 • Precarious working conditions
 • Life-work interface
	• Physiological
	 • Behavioral
	 • Emotional reactions
	 • Cognitive reactions
		• *Psychological and social*
		   - Mental health
		   - Cognitive impairments
		   - Social and behavioral health
		 • *Physiological and physical*
		   - Cardiovascular disease
		   - Musculoskeletal disorders

Individual characteristics
- Gender
- Age
- Education

Based on this model, Leka and Jain proposed components for an instrument to be pilot-tested in current child work projects. They emphasized, however, that this tool would require additional questions addressing demographic issues, the employment process, working conditions, the work environment, physical hazards, and the family context. They also recommended that standardised

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[18] Leka, S.; Griffiths, A. and Cox, T. 2003.
[19] Kompier, M.A.J. and Marcelissen, F.H.G. 1990.

tools (such as the SDQ and CYRM-28) should be used to expand the factors being studied and/or to further validate the instrument.

Betancourt: A Child Protection Model

The SAFE model is a rights-based approach that offers a holis[...]
and interdependent domains of children's security:

Safety/freedom from harm,

Access to health care and basic physiological needs,

Family/connection to others, and

Education/livelihoods.
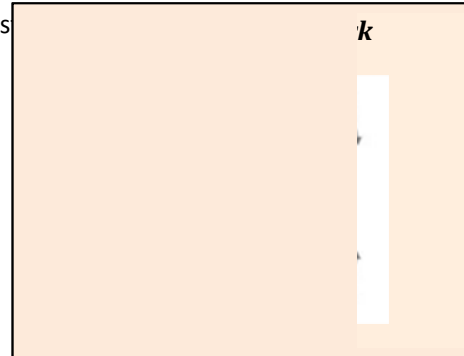
The SAFE framework is rooted in the UN Convention on the Rights of the Child and Human Security models and recognizes that these core elements of child well-being are interrelated and interdependent. The SAFE- Framework, developed by Betancourt and colleagues,[20] was used in the IPAC as a way of thinking about the protection of the psychosocial health of children. The four interdependent domains are all deemed necessary for a child's survival in the face of adversity.   Key points regarding these four domains are as follows:

- Safety: Protecting children from violence, manipulation and abuse is at the core of any protection strategy. Direct exposure to harm involves injury from communal or family violence as well as physical and sexual abuse. Injury and abuse is associated with a number of emotional and behavioural consequences ranging from anxiety and depression to an increased tendency for delinquency.

- Access to basic needs: Health and physiological needs (food, water, shelter, etc.) are central to the security of children. Childhood hunger and malnutrition undermine the conditions necessary for children to survive, attain maximum development, and succeed in many areas of social and personal development, affecting outcomes ranging from school attendance to cognitive development.

- Family/Relationships: Children grow and develop in the context of relationships with others. The need for sustained social relationships, attachment to others, and a sense of belonging form the third core dimension of children's security. Loving and supportive relationships with caregivers sustain life in early childhood and provide the foundations for social, emotional and moral development.

- Education: This dimension concerns a child's future and the opportunities available to them to reach their maximum potential. Family economic security and a child's access to education is a major determinant of their future success. Schools may also provide a safe space for monitoring child well-being and help them develop social networks and supports.

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[20] Betancourt, T.S.**,** et al.2010.

Ability of young people to learn and develop livelihood skills helps children and families to maintain a sense of hope for the future.

The essence of this framework is that children and families will engage in *survival strategies,* which may be either constructive and/or dangerous strategies, to cope with deficits in any of the core domains (a child may, for example, join a military unit as a child soldier if s/he has no good caregiver). It indicates that families and children are constantly actively seeking to ensure that these four domains are adequately covered. This model helps in looking at the issues for children's wellbeing in the workplace from a bottom-up, instead of a top-down perspective.

Boidin: Considering the psychology of the working child in work inspection

While working in West Africa over thirty years ago, Jean-Maurice Derrien, head of ILO's labour inspection department, saw that local labour inspectors were struggling with what to do when they found underage children working. They wanted to protect the youngsters from abusive situations, but at the same time knew that many children worked because they had no other options. Working with Derrien, Catherine Boidin[21] developed a systematic qualitative approach for identifying risk factors in different forms of child work which could potentially pose threats to the child's psychosocial development. Her model views the child worker as a developing human being who is constantly adapting to her/his socio-cultural context, who has rights, and who is actively interacting with others. The effects can be physiological, psychological, intellectual and social.   Boidin's conclusions are particularly apt for the IPAC because they are drawn from direct experience with the child workers (listening to their stories, examining their pictures, observing their verbal and non-verbal behaviours) and because much of the work pertains to children from developing, rather than industrial societies. Key points, relevant to the IPAC are:

- Identity: For the child worker their work is an omnipresent factor. It is present in their identity, influences their thinking and affects their behaviour;
- School: For most children, school is positive as it stimulates social development by creating a platform for interaction with peers, but for child workers it is often a source of added stress. They must balance the demands of school with the time and effort demands of work; and this does not take into account the child's need for socializing and leisure;
- Nature of child work: The work of most children is fragmented and repetitive. This lack of stimulation and creativity can jeopardize cognitive development (planning and problem solving capacities, verbal ability) and lead to various psychosomatic complaints (headache, stomach ache, loss of appetite, fatigue and sleeping problems).   The sense of utter uselessness of the work can generate irritability, anxiety and anger – either outward-directed or depression--inward directed as a form of resistance against being in a hopeless situation from which s/he cannot escape. This is compounded by stress from the conflicting demands for high productivity in the face of low or ambiguous compensation;
- Employer-child relationship: The relation between child workers and the employer are sensitive as their needs are contradictory: the child needs play, social interaction with peers, rest and education; the employer needs skilled, malleable workers. The employer's relationship with the child may range from friendly to authoritative. Children's attitudes toward the employer can vary between gratitude (for the job or their wages), fear, and

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[21] Boidin, C. 1995.

respect (even when punished they may feel they deserved punishment or that the punishment is similar/milder than that meted out by the family). Experiencing violence at work may lead to lifelong sense of distrust of adults, subordination, and the development of self-protective behaviours.

- Family-child relationship: Working in close proximity to his/her family can be a protective factor but, especially if the family itself is under severe stress (financial for example), it can be negative. The family is critical for the child worker in three respects: teaching life skills, appreciating the child and her/his contribution to the family, and relationship-building. Even if the work is arduous and stressful, a safe family environment can be a significant protective factor for a child worker. Alternatively, when the family is working on a piece-work basis (a type of work that is often low-paid and low-status), the members may also suffer from low self-esteem and as a consequence, their recognition for the child's work also decreases. Note: when production is taking place in the home, different factors are at play.

- Work site influences: When children are working in the streets they may develop survival skills such as *autonomy and initiative* as they learn to manage their own lives, and *social intelligence* which is the capacity to effectively negotiate complex social relationships and environments. But it also exposes them to violence and abuse. When children are working in shops and factories, the situation is different as they often have no control. This is especially true with migrant children. Thus, two factors that influence working children's opportunity for socialization are: 1) The *number of hours* of work, 2) The type of *activity* the child is involved in.

- Role confusion: On the one hand, child workers are under the authority of their parents and treated as children. On the other, they take up a parental role in the family (this especially happens when one of the parents is absent); they know their parents depend on them because of the money they earn, and may feel a heavy burden of responsibility such that they feel they must try to conceal their weaknesses.

- Isolation: Where a child is separated from the family and deprived of normal relationships (as in domestic service or bondage), social development is hindered. If, in addition, s/he lives in the workplace, s/he is completely dependent on the good will of the employer which may lead to risk for abuse, feelings of helplessness, loss of self-esteem, regressive behaviour, repressed violence, sense of betrayal, etc. Protective factors in this situation might be a sense of hope, and solidarity with others in the same dreadful situation.

- Violence: Psychological violence comes in many forms: Silence is violence when the child's is ignored by authorities through bribery and other forms of corruption. Under-payment is violence when children have to work as hard as their parents, but they get paid only a very low amount or they do not get paid at all. Debt (bondage) is violence because it keeps the children and their children in a vicious cycle of poverty. Being considered as an object for transaction or use is violence. Being denied a future is violence due to the detrimental effects that work had on their health (such as mutilation or chronic illness), poverty, and lack of education.

Therefore in Boidin's model, the psychological risk factors which would need to be assessed are:
- lack of material and emotional security,
- lack of recognition,
- lack of opportunity to learn about the world,
- lack of autonomy, and

- lack of socialization opportunities.

These risk factors increase the likelihood of a child developing a distorted sense of self, thinking s/he is worthless and useful only to serve others. When there are no protective factors in the environment (such as loving parents) the impact can be even worse.

The indicators of these, and which need to be included when assessing the psychological impacts of child labour are:
- low school attendance,
- fragmented repetitive work,
- poor relations between child workers and employers,
- psychological or physical distance between a child and her/his family (isolation or separation of the child from the family.)

Boidin offers a useful categorization of psychological hazards as follows:

Health hazards linked to social environment	Family and social background; living conditions; society as a whole; natural environment
Health hazards linked to system of work	Working environment; activity; working conditions; employer-worker relationship

Domains and questions

This part of the document is organized around the twelve domains that were initially selected to be included in the IPAC. It documents the rationale for inclusion of each question or questions pertaining to a particular domain and briefly refers to studies and sources that are described more fully later in the document.

Self-esteem/Self-efficacy

 # 1:   Are you proud of your work?

 # 19:   Do you generally feel pretty confident?

Self-esteem is the evaluative component of self-concept, a broader representation of the self that includes cognitive and behavioural aspects as well as evaluative or affective ones.[22, 23]

Self-esteem often has a direct link with the social status of the work. For children, feeling proud is often linked to the appreciation they receive from adults or peers. Hence, when a child considers her/himself to be of lower social value compared to others, it will have negative consequences for the child's self-esteem.[24,25]

It is important to remember that there are both risks/negative impacts of work and protective/positive factors associated with a child's work.[26] Pride in one's work can be one of the protective factors, contributing to a positive self-esteem. An example of how pride can differ according to the cultural context is provided by a study of child domestic workers.[27] The question, "Are you proud of your work?" was answered positively by 30% of child domestic workers in India where domestic work was considered a survival strategy, compared to 83% of the child domestic workers in the Philippines where domestic work was viewed as a chance to earn money to attend school, to attend better schools or to move up the social ladder.

Global feelings of self-esteem and self-esteem with respect to work may stem from very different sources, the former may well derive from non-work relationships, activities and skills.[11] Question #19 refers to a global form of self-esteem, whereas Question #1 refers specifically to the work of the child. Being proud of work and sense of positive self-esteem is a core component of resilience.[28]

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[22] Blascovich, J. and Tomaka, J. 1991, 1993.
[23] Marsh, H.W. and Shavelson, R. 1985.
[24] Fisher, C.B. et al. 2000.
[25] Szalacha, L.A., et al. 2003.
[26] Woodhead, M. 2004a, 2004b.
[27] Hesketh, T., et al. 2012.
[28] Liebenberg, L. et al. 2012, 2013.

These qualities have been measured for adults by the Rosenberg Self-esteem scale[29] and the Coopersmith Self-Esteem Inventory.[30]

# 2:	Do you feel like you have the skills needed to do your job well?

A sense of confidence that comes with having what is needed in order to do the work properly is an indication of *self-efficacy*.[31] Self-efficacy is closely related to self-esteem, and can refer either to an individual's sense of competence or ability in general, or within particular areas.[32] It can also refer to simple technical knowledge.[33] Having adequate work skills is particularly important for children from a psychosocial perspective as it relates to their sense of safety and overall security.

It is one of the key areas within the concept of control as used by Martin Whitehead[34] and thereby includes not only technical aspects of work, but also communication skills and intelligence. He labels these: "cognitive abilities and cultural competencies", suggesting they are not a stand-alone set, but that they should be placed within a larger social-cultural framework.

A measure of self-efficacy for adults is the Generalized Self-Efficacy Scale (GSES).[35] More recently, a self-efficacy scale was also developed for children called the Self-Efficacy Questionnaire for Children (SEQ-C).[36]

# 3:	Do you think others appreciate the work you do?
# 4:	Do you feel that some people look down on you because of the work you do?

The appreciation a child worker receives from those close to her/him is especially important for their psychological well-being and development. This question was included on the basis of Leka and Jain's recommended domain on "interpersonal relations at work", and Woodhead's "personal identity and valuation." Boidin notes, for example, that a child will receive recognition from the community when work is considered as a part of the community rituals and it is seen as an important part of the child growing into maturity. In this situation, recognition for the child's work by the community or the family would be essential for the child's feeling of self-respect. Although there is not an instrument that directly measures appreciation from the parents for the child's work, the Multidimensional Neglectful Behavioural Scale (MNBS)[37] measures emotional needs of children, including indicators such as affection, companionship and support.

Question 4: "*Do you feel that some people look down on this kind of work or on you because of the work you do?*" is the opposite of Question 3: "*Do you think others appreciate the work you do?*" and is an indicator of the detrimental effects work can have on the child when this work is not valued by

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[29] Rosenberg, M. 1965, 1989.
[30] Coopersmith, S. 1967.
[31] Bandura, A. 1977.
[32] Adler, N. and Steward,J. 2004.
[33] Leka and Jain, 2011
[34] Woodhead, M. 2004
[35] Schwarzer, R. and Jerusalem,M. 1995.
[36] Muris, P. 2001.
[37] Kaufman Kantor, G. et al. 2004.

others in the social environment. Even when the work of the child is not looked down upon, having her/his activities simply ignored can have negative effects on his or her self-esteem.

Several specialists have emphasized that low social integration and social competence of child workers is a factor to be examined.[38] There are various reasons: children who are doing work in which they feel they are looked down upon, may have a greater chance of being bullied, belittled or intimidated;[39] and a child's sense of personal dignity is jeopardized when s/he is considered as "an object" that is used[40] to contribute to a production process and that can be replaced if required. Moreover the social status of the work of the parents can have implications for the child's self-esteem in that if their own work is of low status, they may be less able to show appreciation for their child's work.

Stress

 # 6:   Do you feel under pressure to work faster and harder?

 # 10:   Do you feel tired because of the long working hours or heavy work load?

The intensity of work is a factor that needs to be examined from two perspectives. One is the actual speed and difficulty of the tasks the child is undertaking, with high speed repetitive actions being particularly noxious. The other is the pressure from parents or employers to produce more in less time, which can lead to a child worker feeling that s/he is disappointing them and not living up to their expectations.

Pressure of both kinds can make the child more vulnerable to psychological problems such anxiety and depression and if it continues for any length of time a situation of chronic stress can lead to a wide range of physiological, emotional, behavioural and cognitive effects. (See also the vulnerability stress models).[41]

Leka and Jain use the heading of "Design and Management of Work" to describe pressure from the physical and psychosocial environment. They, as well as Woodhead, have shown that heavy workload, fast work pace and long hours of work are significant psychosocial hazards. Items related to the work load and work pace are a key element in surveys of adults' work-related stress.

Output-based payment (piece rate system) is not only a cause of child labour itself, as families increase their income by adding their children to the work-team, but also a cause of psychological stress due to the pressure to work harder and faster in order to increase the output and thereby the income. Boidin makes this point in her work and stresses the importance of including work intensity when studying child labour. Some of the pressure that children experience may be self-imposed in that they are worried about their family's (particularly siblings') well-being and will therefore push themselves to work harder and harder.

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[38] Woodhead, M. 2004.
[39] Alem, A. and Zergaw, A. 2002.
[40] Boidin, C. 1995.
[41] Ingram, R.E. and Luxton, D.D. 2005.

Work that is paid by piece rate and repetitive is often low social status work; brick manufacturing is an example. Such work is often done by the whole family working together. Piece work may also be carried out in the home, such as in subcontracting arrangements for a wide range of manufactured goods (soccer balls, embroidery, shoe-making, fireworks). In this case, there is no longer a distinction between workplace and home.

Items 6 and 10 relate to a chronic state of mental and physical exhaustion, not the temporary feeling of being fatigued from which a child is able to recover after one or two good nights of sleep. The exhaustion can become so serious that the child experiences what, in an adult work context, is called "burnout",[42] a syndrome which is caused by work stressors and an inability to control those stressors. Burnout has similar characteristics to depression, such as reduced performance, a loss of interest in (work-related) activities and emotional and physical exhaustion.

 # 7: **Do you feel bored because there is not enough to do?**

 # 9: **Do you get bored at work doing the same thing for many hours in a row?**

Feeling bored does not mean that the child is eager to do more work, but rather refers to the fact that, for a child to develop normally, s/he requires stimulation and opportunities for creativity. "Under-stimulation" is also a well-known problem in the case of institutionalized children who have not received adequate care or interaction. For working children, this can mean hours upon end doing the same task that requires little thought. The documented effects are delayed cognitive and emotional development.[43] (For an extensive review of the effects of institutionalisation on children, and hence the lack of developmental stimulation see also the work of Professor M. Rutter.)[44]

Leka and Jain discuss this issue under the heading of "Job Content". They urge that the tasks be assessed as to whether they are stimulating, meaningful, offer a chance to learn new skills, or present a steppingstone to better opportunities. While analysis of job content is relevant for children as well as adults, it may not be sufficient in the case of children. A child may be bored not only because of the content of the work but simply because s/he must work rather than doing what s/he would otherwise do, such as playing games with friends or attending school. Similar to Boidin's conclusion, Woodhead suggests in his classification "Physical Environment and Daily Schedules" that the child may feel bored because work, rest and play are not in balance; too much time is allocated to work and not enough on play or rest. Work may also limit a child's chance to interact with other children.

 # 5: **Do you feel that your family relies on you and needs your help?**

 # 8: **Does your family, employer or others ask too much of you?**

A situation where the child is providing for his or her family, rather than the family providing for him or her is a reversal of the usual parent-child relationship. A child having to carry adult responsibilities can lead to role confusion or conflict as in cases where the adults are not prepared to

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[42] US National Library of Medicine, 2015.
[43] Provence, S. and Lipton, R. 1962.
[44] Rutter, M., et al. 1998.

relinquish their parental roles. This situation sometimes arises where a parent is disabled through injury, illness, or substance abuse.

Family and connection to others is one of the core components of the *SAFE-framework* developed by Betancourt et al.[45] The framework indicates that a child will actively use coping strategies in order to find a balance between the four components of the framework. Child work can, from this point of view, be perceived as a way for the child to be able to receive the love and affection s/he needs from her or his family. However, as Boidin has shown, this could also put an extra burden on the child when the love and affection is conditional upon the child's ability to provide the family with the expected or needed income. Even when the parents show their appreciation for the child's efforts, there is a possibility that the child will take on too much responsibility for the care of the family and that s/he will feel guilty when s/he cannot fulfil the demands.

Item 9 is comparable to item 5, but differs in that it adds the expectations from the employers and others around the child. If expectations placed on the child are excessive or even conflicting, it puts the child in an emotionally difficult position. This is pointed out in Leka and Jain's "Life-Work Interface" which shows the compounding effects of multiple expectations (from the parents, the employers, and possibly also from other adults such as teachers). This is a common situation for girls who are frequently working both inside and outside the home, the so-called "double burden".[46] In item 9, it is not possible to differentiate which party is putting the greatest demands on the child worker, but rather indicates the combined effect of overlapping social domains.

Personal agency

 # 11:   Do you feel like your work prevents you from doing things you would like to do?

 # 12:   Do you feel that, if you wanted to, you could choose what to do and what not to do?

Having a sense that s/he is able to do what s/he wants to do without being unduly constrained by external factors (e.g. work), and actually having the freedom to do so, are two crucial elements in a child's development. Woodhead refers to the sense of personal agency and the internal versus external locus of control.[47, 48] Internal locus of control means that the child feels that s/he is able to influence his or her environment. Alternatively, when the locus of control is external, it means that the child feels powerless and is dependent on factors – often quixotic – outside her/himself that will determine her/his well-being.

Within Betancourt's SAFE framework, a child's freedom to do whatever s/he wants to do is an important coping strategy. Having the freedom to work might be a way for the child to keep that balance (e.g. s/he could pay for schooling and provide the family with an income). Without the freedom to allocate her/his time, a child may be unable to balance the different domains, as when work takes up so much energy and time that sleep, play, and schooling are short-changed. To compensate for this deficit the child may turn to unhealthy coping strategies such as alcohol or

[45] Betancourt, T.M., et al. 2010.
[46] International Labour Organization, 2012.
[47] Findley, M. and Cooper, H. 1983.
[48] Rotter, J.B. 1996.

drugs. An example is the use of coca among child mine workers in the Andes to cope with fatigue, hunger, and fear.

The importance of personal agency is also shown in an Ethiopian study[49] where it was found that child workers who typically have considerable personal freedom, such as street workers, also showed overall lower prevalence of mental health problems compared to those with less personal freedom who are working in establishments or in home settings.

Relationships

 # 13: Does the environment in which you are working bother you at all?

 # 14: Are you comfortable with the people you work with?

These questions relate to the levels of support a child may receive from her/his social environment. As Woodhead has described it, the child worker is not a passive victim. Instead s/he is a subjective human being whose perspective and experiences are mediated through cultural beliefs and expectations. The child's wellbeing is dependent in large part on her/his relations in social relations.

A work environment that is uncomfortable for the child includes both the physical aspects but also what Leka and Jain refer to as "Interpersonal relationships at work". The child may be isolated from other children; s/he may have a poor relationship with a superior or other workers; and there may be no one to help or protect her/him. Support can come from adults in the work environment, but it can also come from other children. Numerous studies point to the importance of relationship formation in childhood as a predictor of adult well-being. This was exemplified in a study of child domestic workers in which limited social support was one of the key variables associated with low psychosocial scores.[50]

On the contrary, when children are working in a supportive environment, where they feel comfortable working with the people around them, their social environment becomes a protective factor and can counterbalance negative psychosocial impacts (e.g. trauma) whether derived from home, school or work.[51, 52] Children may enjoy being together with their parents or with peers even if it involves work, or may feel comfortable working because they feel their employer gives them the opportunity to develop. It is for these reasons that Woodhead has included positive parent/peer relationships in the domain: "Personal security, social integration and social competence" which is one of the domains most relevant to assessing the psychosocial impact of child work.

Learning the rules of social behaviour, having the opportunity to interact with others, and as a result, having positive social relationships are key elements in resilience scales and psychological instruments such as the Strengths and Difficulties Questionnaire.[53, 54]

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[49] Alem and Zergaw, 1995
[50] Hesketh, et al, 2012
[51] Parker, J.G. and Asher, S.R. 1987.
[52] Bautista, V., et al. 2001.
[53] Goodman, R. 1997.
[54] Goodman, R. 1999.

Supervision & training

 # 15:   At work, do you feel that people watch over you to make sure you don't get hurt?

 # 16:   Do people at work teach you what to do and how to do it?

Supervision and training seems not to have received much attention in the literature on child work nor in previous versions of the IPAC instrument. The reason may be that supervision and training are seen as regulated activities in an industrial workplace where it is assumed that only adults are working. Yet these are critically important for youth for whom the work environment is new and where they have not yet learned the skills to do the work safely.

Woodhead's category of "Activities and Guidance" relates to this area, but is broader than just supervision of a child's work. He includes also the child's progressive participation in socially valued activities, skills and responsibilities under sensitive and consistent guidance, or the reverse, a child's being relegated to doing un-stimulating monotonous work or being introduced to inappropriate behaviours, such as crime or drug abuse.

Instruments that derive from the child development field tend to see training as part of a child's general ability to develop and to learn new things, but in the IPAC, "Supervision and Training," refers to the presence of adults in the work environment who feel responsible for the child's wellbeing and who teach the child the skills s/he needs to be safe.

An organization's "safety culture" is an area that needs to be examined.[55]   Executives, supervisors, workers and parents may not have considered children's safety or may hold divergent views on what are the main hazards and how these hazards are to be addressed on a daily basis. Yet, to protect the wellbeing of children, all the adults in the workplace should feel responsible for the children there. They should agree on what conditions are hazardous and how the children should be protected from these so as to reduce risks to the extent possible.   In other words, the safety culture needs to accommodate the special vulnerabilities of children.

Leisure

 # 17:   Do you have free time each day to do just what you want to do?

The importance of leisure for children has been demonstrated in numerous studies. Play is a key factor in children's cognitive and emotional development, and the chance to be with other children is crucial for social development.[56, 57, 58]

Therefore, an assessment of the balance between work, school, rest and play and the extent of a child's interaction with peers needs to be an essential part of a study.[59] A comparative study of child

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[55] Ben White, personal communication
[56] Honkoff, J.P. and Phillips, D.A. 2000.
[57] Ginsburg, K.R. 2007.
[58] Goldstein, J. 2012.
[59] Woodhead, 2004

domestic workers in the Philippines and India[60] showed the importance of this variable as there were significant differences to the question -- "I know how to relax and enjoy myself" between the two countries (83% in the Philippines vs. 35% in India.) This study also showed that working for more than 10 hours a day was positively correlated with psychosocial vulnerability of the children, which indicates the relevance of assessing the amount of time the child has free.

Emotional Indicators

# 20:	**Do you have any difficulty sleeping?**
# 18:	**Do you have lots of energy?**
# 27:	**Do you have little appetite or interest in food?**

Sleep and nourishment are important in both generating psychological symptoms (if inadequate) and indicating psychological problems (if impaired) and are therefore crucial variables to include in a psychosocial study.

Loss of appetite and a lack of energy can be symptoms of anxiety and depression. Because they are characteristics of major depressive disorder,[61] they are included in diagnostic instruments such as the Beck Depression Inventory.[62]

Sleep can be affected by long hours of work, heavy work load, and interpersonal stress in the work environment. Sleep deprivation can lead to lack of energy, irritability, disruption in the immune system, and impaired cognitive functioning (reduced ability to concentrate, remember, or learn abstract concepts).[63, 64, 65] It is critical in the development of the brain throughout childhood and adolescence, and regulation of brain function.[66] The type and amount of food is also important for a child's neurological development and have a direct effect on the mental health and psychosocial wellbeing of children.[67, 68]

It is for these reasons that sleeping, eating and levels of energy were incorporated in the IPAC. When the respondent indicated that s/he is having problems in one of these domains it could mean that the child might be suffering from a mental health/psychosocial problem. Or, on the contrary, when a child does not subscribe to these problems, for instance that s/he has a lot of energy, it could be an indicator of resilience or that the work is having a positive effect.

Woodhead included sleeping and eating patterns in his category, "Emotional and somatic expressions," along with general health and levels of concentration and stress, and considered disturbed sleeping and eating patterns as some of the major negative outcomes of child work. One can imagine that especially for child domestic workers, who sometimes have to be at the service of

[60] Hasketh, et al 2012
[61] DSM-V, American Psychiatric Association. 2013.
[62] Beck, A.T. et al. 1961,1993.
[63] Pilcher, J.J. and Walters, A.S. 1997.
[64] Irwin, M. et al. 1994.
[65] Randazzo, A.C. et al. 1998.
[66] Dahl, R.E. 1996.
[67] Boyden, J. et al., 1998.
[68] World Health Organization, 2006.

their employer virtually full-time, lack of sleep is one of the most important risk factors. Alem and Zergaw's study in Ethiopia showed that one of the most frequent problems of child workers was that they were experiencing sleep problems.

# 21:	**Do you have trouble concentrating?**
# 22:	**Do you feel restless and cannot stay still very long?**
# 28:	**Do you find that you often forget things?**

The ability to focus and to memorize are important executive functions. Executive functions relate to the aptitude of a person to control, manage and regulate cognitive processes. They are integral to higher brain functioning which is required for goal formation, planning and goal directed action.[69] When a child worker is having more trouble concentrating and/or is more frequently forgetting things than others her/his age, it often shows up in their work.[70]

Executive dysfunctionality can be an indicator of mental health problems. Although it is not the purpose of the IPAC to diagnose child workers and to put labels on children according a DSM or ICD-10 classification (which would anyhow not be possible with the use of only one instrument and without clinical observation by a professional), it is noteworthy that the inability to concentrate, often forgetting things and feeling restless and fidgety are the main symptoms of Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD)[71] as well as anxiety related disorders. ADHD and ADD are among the most common mental health disorders for children and adolescents worldwide, with prevalence rates of 5-7%.[72, 73] This underscores why symptoms of such disorders are important to take into consideration. Although only disrupted concentration is the only symptom mentioned in Woodhead's model, there is good basis for classifying them in the domain emotional and somatic expressions of wellbeing.

Generic instruments that screen for these symptoms are, for example, the Strengths and Difficulties Questionnaire (SDQ) and the Achenbach questionnaires (CBCL, YSR and the TRF).[74]

# 23:	**Do you feel sad and like crying?**
# 24:	**Do you get into fights or quarrels easily?**
# 26:	**Do you get angry and often lose your temper?**

Question #23 refers to "internalizing behavioural and emotional problems" which are associated with feeling unhappy, alone, depressed and anxious as well as behaviours such as withdrawing from the company of others. It can be predictive of emotional difficulties such as negative perceptions of self-worth. There is some indication that internalizing behaviours might serve to buffer children

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[69] Elliott, R. 2003.
[70] Nieuwenhuis, S. et al. 2004.
[71] Nigg, J.T. 2006.
[72] Faraone, S. et al. 2003.
[73] Polanczyk, G. et al. 2007.
[74] ASEBA, 2015.

against the negative effects of others' externalizing behaviours.[75] Prolonged sadness is, according to Woodhead's framework of the psychosocial impacts of child work, an emotional expression that could be a precursor for depression (as measured, for example, by the "Child Depression Inventory.")[76] The reason for sadness could have been a traumatic event, such as the loss of someone who was close to the child, but it could also be related to the child feeling s/he is unable to have a normal life.

Questions #24 and 26 refer to "externalizing behavioural problems" such as acting out, breaking the rules, and social adjustment problems. It generally indicates that a child has a low level of inhibition and is therefore unable to control her/his actions or handle her/his aggressive impulses. Following the Achenbach survey categorization, externalizing behavioural problems include such designations as Opposite Deviant Disorders (ODD), Conduct Disorder (CD) and Attention Deficit Hyperactivity Disorder (ADHD). In western society, externalizing behaviour tends to be more common among boys, while girls tend to have more internalizing problems.[77]

Externalising problematic behaviour can have a range of causes which include genetic or pre-natal conditions, neuro-biological factors, and aspects of the social environment of the child at different times in her/his early life. There is considerable research that correlates externalizing behavioural problems in children with weak parent/ child attachment and family instability, as well as low social-economic status.[78] Some research suggests that especially severe externalizing behavioural problems during adolescence could lead in adult life to multiple social and health impairments, thus reinforcing a cycle of poverty and social disruption. [79]

One should avoid labelling internalizing or externalizing behaviours as either desirable or undesirable. Depending upon the context, one or the other may be a more healthy coping mechanism as, for example, if a child were to express frustration with an intolerable situation or hostility toward an abusive employer. The work may, in fact, help a child learn to control her/his own aggressive impulses and channel them in a pro-social direction. Pro-social behaviour is an important skill of the child that is required to form social bonds with peers and adults.

Symptoms of externalizing behavioural problems as well as pro-social behaviour have been measured in screening instruments such as the Strengths and Difficulties Questionnaire, the Child Behaviour Checklist and the Self-Description Questionnaire.[80] The Self-Regulation Questionnaire (SRQ) has also been used to assess children's ability to regulate negative emotions and disruptive behaviour, and to set and attain goals. (These instruments are outlined in Section II of this document.)

25: Do you feel lonely?

Closely related to feelings of unhappiness is the sense of being alone. More than for adults, a child is dependent on the social environment for her/his emotional well-being. In Woodhead's framework, a

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[75] Chen X, Liu M and Rubin K (n.d.)
[76] Kovacs, M. 1985.
[77] Rigter, J. 2008.
[78] Mash, E.J. and Wolfe, D.A. 2013.
[79] Colman, I. et al. 2009.
[80] Marsh, H.W. et al. 1984, 1988, 1990, 2005.

key domain is "Personal security, social integration and social competence," and the concept of "Secure relationships and consistent settings" is positioned at the top of the table on the psychosocial dimensions of child work signifying the importance he gives to the child's social environment and children's need to form lasting bonds with adults. Other studies emphasize the importance of creating and maintaining these bonds as a way to prevent loneliness. Betancourt, for example, included the F-domain (Family and connection to others) as one of the four elements in the SAFE Framework.[81] Boidin points out that even in the most dreadful situations (such as children who have been bonded or trafficked outside of their home areas for work and where the child may be completely separated from the family) the contact with peers can be a protective factor.[82]

It is important to realize that feeling lonely does not necessarily imply that the child is also physically isolated. Feeling lonely is an emotion felt by the child worker that is expressing a need for social support and interaction. It is therefore also possible that a child feels lonely because s/he has problems relating to peers or because s/he lacks social skills.

Somatic indicators

 # 29: Do you feel tension in your body?

 # 30: Do you feel dizzy?

Tension and dizziness are common stress-related symptoms as are lower back pain, headaches and heart palpitations. Stress is by no means the only cause, as child workers may experience dizziness due to lack of food, but is an example of the close connection between mind and body.

Occupational stress is defined by the WHO as: "the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope."[83] High work demands coupled with low decision latitude – as is often the case with child workers – increases the likelihood of experiencing stress-related symptoms. (See the *demand-control model*[84])

Prolonged stress heightens the activity of the sympathetic nervous system and the adrenal medulla, which leads to increased secretion of hormones such as adrenaline, noradrenaline and corticosteroids into the blood stream. This increases blood pressure and heart rate which, in turn, can cause dizziness. A high level of corticosteroids has an adverse effect on the immune system, making the body more vulnerable to infection.[85] This illustrates the link between stress in the environment and how the body attempts to cope with this stress.

Woodhead[6] refers to psychosomatic conditions under the domain: "Emotional and somatic expressions of wellbeing". Boidin[18] discusses the psychosomatic complaints children may experience when they are forced to conduct repetitive and fragmented work. The studies of Hesketh et al. on

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[81] Betancourt, T, 2008
[82] Boidin, C 1995
[83] World Health Organization. 2015.
[84] Karasek, R.A. 1979.
[85] Van der Molen, H., et al. 1997.

child domestic workers, and Alem and Zergaw in Ethiopia have shown that frequent headaches and dizziness are some of the most common health complaints experienced by child workers.

Chronic fear & anxiety

 # 31:   Do you feel afraid or nervous?

 # 32:   Do you worry and think a lot?

 # 33:   Do you think back about all the bad things that have happened to you?

Anxiety is an adaptive emotion that readies children physically and psychologically for coping with people, objects or events that could be dangerous to their safety or well-being.[86] Fear and anxiety can therefore be considered as a normal human emotion that is required from an evolutionary point of view for a child's survival. Fear is the reaction to an immediate danger or perceived threat. Anxiety is a future-oriented emotion that is characterized by feelings of apprehension and lack of control over potentially threatening upcoming events.

Although a certain level of fear can be good in some situations, excessive, uncontrollable and/or chronic fear and anxiety is debilitating. When a child is constantly worrying, thinking about the past or is anxious in a situation where other children of the same age function calmly, it indicates that something may be wrong.

Anxiety and fear can come in various forms. The child may have an excessive fear of being separated from parents or siblings (separation anxiety); s/he may be afraid to interact with others (social anxiety), s/he may be frightened of specific things (phobias), s/he may have obsessive or intrusive thoughts and compulsions, or persistent anxiety following a traumatic event. Fear and anxiety can be expressed physically (e.g. dizziness and heart palpitations), cognitively (constant worrying) or behaviourally (avoidance, trembling voice).[61]

Questions on chronic fear and anxiety have been included in the IPAC in that some child workers have reason to worry about their future, but also because they are particularly vulnerable to danger and threats due to the circumstances of their work. For example, child prostitutes and street workers (as in Alem and Zergaw's study) have an increased vulnerability to traumatic events (such as being sexually and physically assaulted). Key features of Post Traumatic Stress Disorder (*PTSD)* are reminiscing about the past (question #33), or avoiding the stimuli which arouse those memories.[87]

Trauma, fear and anxiety are presented in Woodhead's diagram as negative states that are caused by major psychosocial hazards. Boidin speaks of forms of violence in the working relationship which can create trauma, anxiety or fear, such as the violence of ill-treatment and the violence of being without a future. Alem and Zergaw found that the profile of child workers with respect to simple

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[86] Barlow, D.H. 1988.

[87] Anthony, J.L. et al. 1999.

phobias and fears was similar to that of other children.[88, 89] Instruments that measure fear and anxiety follow closely the DSM classification such as the DICA,[90] Achenbach surveys and the RQC.[91]

Hope & helplessness

 # 33:   Do you think back about all the bad things that have happened to you?

 # 34:   Do you think your life will get better some day?

 # 35:   Do you think your life is worse than that of other children?

 # 36:   Do you think life isn't worth living?

Child workers who express despair in their responses to Questions 34, 35, and 36 are signalling that something in their home or work environment is seriously wrong. Hopelessness and helplessness are components of depression and are often associated with other symptoms such as loss of weight, a loss of appetite and energy, and disturbed cognitive functioning.[92] When children indicate that they feel their lives are unlikely to get better (Question #34), it means that they do not think that they can do anything to change the situation, often referred to in psychology as "learned helplessness". [93, 94]   Feeling that, compared to others, their lives are worse (Question #35) accentuates the feeling and indicates there may be little social support. Worrying and thinking a lot (Question #32) are typically symptoms of learned helplessness and depression, but in the case of child workers may reflect the added psychological burden of responsibility for the family, standing in for a non-existent or impaired parent, or responsibility for the education and well-being of a sibling. Question #36 investigates the degree of seriousness with which the children perceive their situation as it is an indicator of suicidal thoughts. Although suicidal thoughts are often not present at very young ages, they may already start to occur among school-aged children.[95] Feelings of hopelessness and helplessness have shown to be correlated with suicidal ideation.[74]

Learned helplessness, external locus of control, feeling worthless and making negative social comparisons are indicators of major psychosocial hazard. Boidin describes the despair that child workers may fall into when they conduct the same repetitive activity day in day out, or when children are physically or sexually abused in the workplace. She notes, in addition, that lack of education and entrapment in a vicious circle of poverty can also contribute to these feelings.

The symptoms of helplessness and hopelessness are included in measures of depression such as the Beck Depression Inventory and the Child Depression Inventory.

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[88] Boyd, J.H. et al. 1990.

[89] Bener, A., et al. 2011.

[90] Herjanic, B. and Reich, W. 1982.

[91] Giel, R., et al. 1981.

[92] Hiroto, D.S. 1974.

[93] Seligman, M.E.P. 1975.

[94] Abrahamson, L.Y., et al. 1978.

[95] Mash, E.J. and Wolfe, D.A. 2013.

Social factors

The domain "Social Factors" explores acceptance, support and love, on the one hand and social rejection on the other. This domain has been demonstrated to be one of the most crucial for child workers as a sense of security is one of the most potent protective factors in what are otherwise difficult or even abusive situations.

The first and undeniably most important level is the family. Much of the literature describes the bonding between parents and children as an absolute necessity for healthy development. John Bowlby was the first to integrate aspects of evolutionary biology into prevailing conceptions about early psychodynamic experiences and from this derived his "theory of attachment". Attachment refers to the process of establishing and maintaining an emotional bond with parent or first caregivers. It is an ongoing process which provides children with a secure base from which they can explore and learn about the world.[96, 97, 98]

Feeling loved and supported by parents (Question #37) has come to be regarded as an important protective factor. Woodhead included "Personal security, social integration and social competence" in his table of psychosocial dimensions most relevant for the assessment of child labour. However, Boidin cautioned that work can also be disruptive of the bonds between parents and the child. And while love and affection from the family can help children develop, conflict in the family can hamper psychosocial development. Research has shown that children who are living in high conflict families display more behavioural problems than those that are living in single parent families.[99, 100] Similarly, general household dysfunction – which might prevail when families are forced to put their children to work due to war, environmental disaster or other crisis or in situations where part of the family migrates for work -- can also have negative consequences as shown in findings of the *ACE-study.*[101]

Child workers, not infrequently, are of a different ethnic, religious, or economic group than others in the immediate area. Questions #39 and 41 explore the extent to which there is a sense of alienation or belonging with respect to the larger community, and then how this correlates with other aspects of their psychosocial profile. These questions examine the child workers within the larger context of communities and the wider society. One indicator of whether this relationship is supportive or debilitating is in the quality and intensity of interactions between the child workers and other members of the community. Acceptance by the surrounding community can contribute to resilience,

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[96] Bowlby, J. 1973.
[97] Bowlby, J. 1988.
[98] Waters, E., et al. 2000.
[99] Rutter, M. 1971.
[100] Hess, R.D. 1979.
[101] Feliti, V.J., et al. 1998.

but isolation from that community can also do so in the sense of contributing to stronger bonds among the child workers themselves.

As studies have shown, children's resilience is not a trait unique to a special group of "invulnerable" children. Instead, resilience comes through various protective processes (in interplay with risks) in the social ecology of the child.[102] As noted above, a strong relationship between parents and child is one of these protective processes, but another can be a positive connection with the larger society which can be fostered through social groups, common playgrounds, but most especially school.

While being accepted by the community is a protective factor, being rejected or teased by members of the larger community amplifies the estrangement that children in some occupations experience (notably, child sex workers and scavengers). Migrant workers are particularly vulnerable due to language and social barriers, and the fact that they are usually in the minority, and hence at risk of bullying and other forms of discrimination.

In Woodhead's framework, community affiliation is addressed in the domain, "Personal security, social integration and social competence", and he underscores negative aspects (isolation from peers, bullying and stigmatization) as major psychosocial hazards. On the other hand, Boidin holds that it is often through work that children are inducted into society (agricultural occupations are a good example of this). Not only do the child workers have a positive relationship with the wider society, but they actively contribute to it. Relationship with the social environment, level of cooperation, getting along with and being supported by others constitutes a section of the Child and Youth Resilience Measure (CYRM-28)[103,104] an important screening instrument that explores the resources (individual, relational, communal and cultural) available to youth aged 12 to 23 years old, that may bolster their resilience.

IPAC gives attention to the social environment as a means of contextualizing the child workers and considering them both from the standpoint of their work and of their larger social network. Harm or benefit can come from either source.[105]

# 40:	Do you have one or more good friends that support you?
# 42:	Do you play games or sports with friends
# 43:	Do you feel very different from other children your age?

Questions #40 and 42 are searching for protective factors that may be moderating the effects of work, etc. The opportunity to make friends, to form peer relationships and to interact with other children is a crucial part of children's development, therefore the degree to which the work environment hinders or enhances this is an important variable to study. While perhaps less significant for young children, peer relationships are quite important for the age group when children are most likely to be working and to which the IPAC is directed – those over 9 years of age. If work impedes the development or expression of children's peer relationships, as is the case with certain kinds of fast-paced manufacturing (e.g. match factories) they lose an opportunity for learning

[102] Betancourt, T.S. and Khan, K.T. 2008.
[103] Ungar, M. and Liebenberg, L. 2009.
[104] Resilience Research Centre. 2015.
[105] Hesketh, personal communication

and practicing a variety of social skills.   As the child grows older friends also provide safety and comfort.   However, the degree to which friendships vie with familial relationships will vary by culture.[106, 107, 108] (Note that childhood, adolescence, and adulthood are arbitrary distinctions which are largely culturally influenced).[109]

In Woodhead's framework, the dimension of "Peer support and solidarity" is listed as a major positive influence. In contrast, a major negative influence is isolation from or rejection by peers in the form of bullying, violence, and stigmatization. Boidin points out, however, that child workers' peer relationships may not always be positive in that they may encourage anti-social or unhealthy behaviours, particularly among those who are not receiving adequate appreciation or recognition from parents or society. "Social capital" is a useful concept when examining the networks of child workers and is an important correlate of psychosocial wellbeing.[110]

Abuse and maltreatment

 # 44:   Do you get scolded, or criticized or made to feel small or stupid at work?

 # 45:   Do you ever get beaten at work?

 # 46:   Has anyone at work tried to touch you in a bad way?

 # 47:   Have you ever been severely punished for mistakes you made at work?

 # 48:   In your day-to-day life do you feel safe?

> "*The child trapped in an abusive environment is faced with formidable tasks of adaption. She must find a way to preserve a sense of trust in people who are untrustworthy, safety in a situation that is unsafe, control in a situation that is terrifyingly unpredictable, power in a situation of helplessness*".[111]

This statement captures the essence of the world of child workers who are in an abusive situation. Five questions are devoted to this domain in order to determine if, in fact, a situation constitutes abuse. To do this, they explore the issue from different angles and different degrees of brutality: simple harassment, physical violence, sexual abuse, intimidation and other forms of psychological violence. These questions are presented late in the interview due to their sensitive nature.

Active abuse (as opposed to neglect which is investigated in Question #37: "Do you feel loved and supported by your family?") is not merely a form of physical pain or transitory fear, but threatens children's emerging sense of self and their general feeling of safety and wellbeing (Question #48). Woodhead labels emotional, physical and sexual abuse as *"psychosocial toxins"* which implies that psychosocial harm is often caused not only by one major traumatizing life event, but by the accumulated effect of a variety of stressors, their duration, or their intensity. That abuse is a real

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[106] Berndt, T.J. 1996.
[107] Larson, R.W. and Richards, M.H. 1991.
[108] Shaffer, D. 2002.
[109] Fry, C.L. 1996.
[110] Hesketh, personal communication
[111] Herman, J. 1992.

"psychosocial toxin" is also supported by biological evidence in which elevated levels of cortisol due to abuse is shown to lead to permanent damage of the brain.[112]

For child workers, maltreatment often takes place where there is a *dependency relationship*, such as with an employer.   As occurs also in a family, child workers feel they must submit to an abusive situation because they are dependent on it.   Rewards, in the form of money, appreciation, even affection can co-exist with abuse.   Boidin shows that children still can have feelings of gratitude towards their employers, because they were given a job, even when the employer punishes them often and in a harsh manner.   Physical or sexual abuse tends to be given more attention in the literature and in practice than emotional abuse, yet the study by Alem and Zergaw shows that insults and intimidation are much more frequent forms of abuse of child workers. An increasing number of researchers state that child *emotional abuse* may be even worse than physical abuse, because there is no specific wrongdoing of the child and it devaluates him or her.[113,114] Instruments which deal with abuse are the Multidimensional Neglectful Behaviour Scale (MNBS),[115] *the* Conflicts Tactics Scale,[116] and Finkelhor's Risk Factor Checklist.[117]

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[112] Teicher, M.H. 2002.
[113] Gauthier, L., et al. 1996.
[114] Kent, A. and Waller, G. 2000.
[115] Straus, M.A. 2015.
[116] Straus, M.A. 1979, 1996,
[117] Berger, R.M.,, et al. 1994.

Recommendations on design of IPAC

This chapter summarizes the recommendations made by specialists in child labour, child psychology, and occupational psychology concerning the purpose and content of the instrument. These inputs and recommendations were provided at various points in the development of the IPAC: in the initial design stages, subsequent to the pilot tests, and in subsequent critiques. The commentary is organized around three major themes:

   a) fundamental principles;
   b) overarching design considerations; and
   c) technical details.

Within these themes, the comments are clustered under the questions which were posed to the specialists and are seen as critical to formulating such a tool. They include comments from a number of persons, and although they show some variability, it is remarkable the degree to which they reflect a consensus about the issues being discussed. Frequently, several specialists made the same or similar comments (for example, the importance of considering positive as well as negative outcomes). To enhance readability, this consensual view is presented only once, but where there is a conflicting view, it is always stated.

Fundamental concepts

This theme deals with issues of ethics and principle. Principles are critically important in a study of this kind – one that involves children, and particularly children who may be in a disadvantageous position – and are perhaps more demanding in this respect than is the case with more common types of research or project-related investigation.

What are the ethical considerations to be taken into account when studying children?

- Ethics is a cross-cutting issue. All tools and indicators must have an ethical component.
- Children must be considered as subjects and not as objects. Children's perspectives and views must be foremost.
- An important ethical concern when it comes to the administration of this instrument to working children is the need for a sound system of referral and follow-up and ensuring that poor children would be able to access the services should they be needed. More fundamentally, one should seriously question whether it is ethical to study a child in what may be difficult circumstances without being prepared to do something about them.
- It is important to be especially mindful of ethical considerations when measuring depression.

Are there other special considerations when doing research on children? Or on children's work?

- Be careful not to assume that child workers have more problems than non-child workers.
- The influence of work on a child may be less important than the context of the child

- Be careful not to put psychiatric labels on children.
- The critical factor for children is their differing stages of development. A young child will react differently to a situation than one who is pre-adolescent, and again one who is post-adolescent.
- Psychosocial health of children includes psychosocial well-being and psychosocial development. These are two very different things that may need to be assessed using different methods with different tools.
- Don't focus on just one issue. It is inappropriate, and often even outright harmful to children, to focus on just one issue--e.g. their work--independently of other important factors that affect them. Risks, protective factors, and other issues occur and work in clusters and are closely related to one another.
- Conduct good social research. A source of perverse effects on children is a propensity to establish and follow general policies and other rules that are not solidly rooted in evidence born of good quality empirical research.   Develop indicators that are well respected by the research community.

What are the guiding principles, the sine qua non, when studying children's occupational health?

- A balance is required between negative and positive factors. Positive aspects of work are often ignored, yet many children report psychosocial benefits from work (even work that is quite challenging). These include increased self-esteem and sense of pride associated with making a meaningful contribution to the family. There is also quite a lot of evidence that children who work may have more developed *pro-social skills* than do children who do not work.   Work may also have *'steeling effects'* in children who experience difficult circumstances.
- The instrument needs to allow for positive psychosocial or moral outcomes or it will result in serious bias.

Overarching design issues

How should we begin to conceptualize a study on the psychosocial impact of work on children?

- A global tool needs to be developed with the main elements drawn from already existing models.
- Rather than relying just on one tool, it will be necessary to work towards a comprehensive process.
- A multi-method approach is required that incorporates both quantitative and qualitative aspects.
- It is important to look at both psychological risks/opportunities and psychological impacts/outcomes.
- It will be more effective to address specific components of psychosocial functioning rather than well-being in general. General measures are problematic for reasons such as ambiguity in defining these concepts across cultures.
- Some literature suggests that resilience, for example, is better understood as a process rather than as an individual trait. As these processes differ from culture to culture it would generally be recommended to include qualitative components in the studies.

- Include 2-3 specific psychosocial constructs that are measured using scales that have been used in similar contexts. Recommended constructs are Self-Esteem, Agency/Self-Efficacy, Peer/Parent Relationships and Depressive Symptoms/Difficulties.

What are the critical elements that must be included in the overall design of the research?

- An ecological framework or a holistic perspective is crucial. It must also have a developmental component
- There must be room to accommodate cultural differences.
- There must be consistency between the items and it must be able to be comparative.
- A study that focuses on occupational impacts must be able to make a link between psychosocial health with the working environment; this is not easy with physical health, and extremely difficult with psychological health because of the effects of the non-work (e.g. home) environment.
- It is extremely important to look at the full mixture of effects of work (problems and benefits), and to include the risks and protective factors, instead of just trying to pick out or label the effects as either good or bad.
- Both situation research and interventions have to be specifically contextualized. Family, economic, social, cultural, ideological and other contexts are often so defining that they dictate whether what appears to be the same sort of work has a net positive or negative impact on the children involved. In practice, contextualization usually implies much more participation from children and their families and communities.
- Not only the work situation should be measured, but also other factors in the lives of the children should be taken into consideration.

What should be the research objectives?

- To identify groups of children that are at risk of being exposed to psychosocial-hazards, as well as those benefiting.
- To measure the magnitude of the impact of psychological hazards on children's health, development, functioning and well-being.
- To identify naturally-occurring assets and protective processes that can be built upon.
- To identify risky (negative) coping strategies.
- To make recommendations, based on credible evidence, for appropriate interventions that build on protective processes/ local assets and mitigate risky strategies.
- To identify ways of building resilience.
- To explore and test a research design that can be used by others, so as to avoid continuing with 'quick and dirty' methods, or methods which do not take into consideration children's special characteristics.
- To better understand which kinds and conditions of child work are likely to have different kinds of psychosocial impacts. Child labour is not a homogeneous category even within sectors and sub-sectors and within particular cultures and countries. The purpose should be to understand better which kinds and conditions of child labour are likely to have different kinds of psychosocial impacts.

What are the research questions that one can seek to address?

- What percentage of children is exposed to psychosocial work hazards?
- What types of psychosocial hazard are they exposed to?
- What are the impacts on their psychosocial wellbeing?
- What are the consequences for their psychosocial development?
- How do the hazards weigh against benefits from the work?

What are the major research components?

- Developmental
- Cognitive
- Needs
- Naturally occurring assets
- Operational requirements
- Ecological context (work, home, social group)
- Hazards and risks - protective factors – psychological health outcomes

(*Dissenting comment*:   These categories are incomplete and therefore would produce an incomplete index. Considerably more attention must be given to the context of the children's daily lives and other activities, family economic situation, etc.)

Technical details

How should targeting and sampling be done in this type of study?

- The focus should be placed on groups of children at risk, not individuals
- Pay specific attention to the comparison between research and control groups. This may require innovative ways of matching.
- Target Group: Make sure you indicate the correct target group. Who is it exactly that you want to assess? Which ages are we most interested in? very young children or adolescents or youth?
- Notes that development is a continuum but that you may need to consider age brackets.
- There is a need to look at the younger age-groups, but with them it will be more difficult to do a risk-assessment based approach as it is not recommended for children younger than 8 years. Younger children are also conducting different kinds of work and therefore they are exposed to different risks (Possible categories are: 3-5, 5-9, 10-14, 15-17).
- It may be possible to target all children at once, merging all the age groups and using universal indicators of development.
- Snow ball method might be the best way to reach the most vulnerable children (there is need for a standardized way of sampling).

What are the critical factors in the design of the instrument?

- The instrument must be concise. The children will lose their concentration after 45 minutes. Some of the categories suggested can be collapsed or combined with others.
- The instrument must be able to analyse more than one developmental domain at the same time.
- The instrument needs to consist of two short parts: risks and impacts (spectrum questionnaire), which also needs to identify if there are mediators between risks and impacts.
- The instrument needs to be flexible, but it also needs to contain thresholds.
- The questions need to be written in neutral manner to allow children to decide for themselves whether something is positive, negative or a mix. Then, when they report negative effects, we will be able to take those seriously.
- Do not label a characteristic *a priori* as good or bad, positive or negative. Note also that some forms and conditions may have various kinds of positive impacts.
- Psychosocial hazards can be different for different children, for girls and boys. The hazards will depend on the tasks being conducted. But you do not need to have a different questionnaire for each, it is already sufficient if you ask all the children information-rich questions, in this way you can also find out which children do which tasks.
- The tool needs to measure universal indicators of development, to assess all the age groups at once. It is important to note, however, that different age groups have different reactions and so there may need to be different tools for different age groups.)
- Tools for determining neuro-toxic exposures (alcohol, drugs, and chemicals) and their effects need to be included.
- It is useful to think of harm/risk and well-being/benefits as two ends of the same continuum. However work that has both positive and negative characteristics needs attention and cannot be dismissed as neutral in the middle of the continuum.
- Risks/protective factors should be considered along with the negative and/or positive impacts.
- Try to differentiate between underlying sources of problems, e.g. is it work or an abusive parent, etc.?
- Examine children's exposure to 'social harms' such as deprivation of education and a safe home.

What are the key indicators to be included in the instrument?

- Empathy: the capacity of the child to feel emotions for others
- Self Esteem
- Capacity to play with others, social play
- Effective and healthy communication with others
- Externalizing vs. Internalizing characteristics
- Suicidal behaviour
- Pro-social behaviour
- Injuries
- Stressful environments
- Hours of work

- Sleep deprivation
- Chronic effects
- Abuse
- Pride
- Skill acquisition (perceived, actual) – even in repetitive jobs children may learn something, e.g. how to handle customers, employers, etc.
- Nutritional status. This may be negatively impacted, but often is positively impacted in that children gain money for food or gain access to food (as in restaurant work)
- Sense of value to their communities
- The prevailing 'Organizational safety culture', i.e. the commonly perceived hazards, appropriate practices, adequacy of control measures, plus the differing perspectives on these held by company executives, worksite supervisors, and workers as to what are the main hazards, which are of high priority for control, and how these hazards should be addressed.

(*Comment*: empathy and suicidal thoughts might not appropriate indicators in this type of study as they imply an attempt to diagnose mental disorder; in social research, this can lead to a bias toward seeing working children as ill.)

From where should indicators be derived for use in the questionnaire?

- from existing instruments (see Section II)
- from observational studies.

How should the indicators be identified and selected?

- (View #1):   Identify a validated instrument that captures as many of the impacts as possible. Update this/these instruments with additional risk factors that have not been assessed before.
- (View #2):   First, many items need to be generated, then a winnowing process can determine which items are most relevant.
- Consider the indicators as a spectrum.
- It is not possible to be restricted to a set of symptoms when dealing with psychosocial issues, nor even domains, because psychosocial wellbeing is a broad and disparate field.

What methods are most appropriate for studying this topic?

1. Child based/participatory methods (Peer-to-peer research might be interesting to try in this case)
2. Questionnaire
3. Key informant interviews: employers, parents/caregivers, community members in the sample. It might be difficult in some situations to ask for employers' participation. It will be necessary to work with the family and the work place and the social context (family life and work life can be blurred). There is a chance that internalized disorders will be missed if just one key informant is asked. You can always ask a parent "how the child is functioning" and you can get a good idea of the development of that child. Usually we look at school to find

the parameters of child development, but this is very difficult in developing countries, especially when it comes to discussion of child work.

4. Qualitative rapid assessment (for preparatory work)
   o the Rapid Assessment should take about 3 months approximately to understand the conditions; some quantitative elements can be mixed in.
   o Start with more questions than necessary in the beginning, but there is no need to be exhaustive.
   o Then refine and add aspects of what you already have and standardize the methods without deleting the open questions.
   o The Rapid Assessment has to be *multi-informant*.
   o After the RA, a follow-up needs to be done with control groups and the target group, using quantitative and qualitative approaches simultaneously

Are there special considerations in interviewing working children?

- The objective of the interview is to identify hazards in the child's social and work-environment and to gain the child's perspective on his or her situation. To achieve this, the interview must be conducted in a sensitive and careful way. First, the interviewer must familiarize her/himself with the situation of the child labourer. Second, the interviewer must develop an atmosphere of trust. Third the interview techniques must be adapted to the child's level of development. During the interviews not only verbal, but also non-verbal behaviour need to be observed. It is important to give the respondent the opportunity to speak freely about the subject.
- Asking a child to take time out from work to be interviewed normally requires some sort of compensation – material or financial.

Distillation of Comments

Key points drawn from these comments which were given high priority in the design of IPAC are as follows:

1. elicits both positive and negative factors
2. is short
3. includes neurotoxic elements
4. considers both psychosocial risks and outcomes
5. includes qualitative/observational/open-ended elements
6. maximizes cultural specificity over comparativeness
7. limited to one occupational sector
8. not used for diagnosis or screening
9. use existing tools, validated indicators where possible

PART II

REVIEW OF RELEVANT RESEARCH & TOOLS

Section II is offered as a reference of existing studies that may be pertinent to children's and occupational health. The first part presents the domains and indicators that have been used in recent studies for measuring children's emotional well-being (avoiding those diagnostic tools whose main aim is to detect pathology).[118] The second presents those which pertain to the much larger group of instruments that have been developed for measuring occupational health, the vast majority of which were for adults and for adults in industrial-country work settings. A third section summarizes a few studies which combine the two, i.e. the psychological aspects of children's work.

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[118] This is not only outside the purview of this type of social research, but also risks 'pathologizing' child workers. (Virginia Morrow, personal communication, 9/2015)

Domains and indicators derived from child psychology

Beck Depression Inventory

The *Beck Depression Inventory (BDI)*[119] is a 21 items questionnaire that includes items with the themes hopelessness and helplessness, cognitive aspects such as guilt or feelings of being punished, concentration problems, physical aspects (e.g. loss of appetite and sleeping difficulties), and a general loss of interest in activities (e.g. loss of interest in sex). The BDI is an instrument developed for individuals aged older than 13 that considers the subjects cognitions about the *self*, the *world* and the *future*, levels of Cognition that play a major role in the development and continuation of depression. The BDI and subsequently later versions of the BDI (BDI II and III) have formed the basis for the Child Depression Inventory (CDI) later developed by Kovacs (see next section).

Domains

- Sadness
- Pessimism
- Past Failure
- Loss of Pleasure
- Guilty Feelings
- Punishment Feelings
- Self-dislike
- Self-criticalness
- Suicidal thoughts or wishes
- Crying
- Agitation
- Loss of interest
- Indecisiveness
- Worthlessness
- Loss of energy
- Changes in sleeping pattern
- Irritability
- Changes in appetite
- Concentration difficulty
- Tiredness or Fatigue
- Loss of interest in sex

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[119] Beck, A.T., et al. 1961., Beck, A. T and Steer, R.A. 1993

Child Behaviour Checklist/ Achenbach Surveys

The *Child Behaviour Checklist (CBCL)*[120] is a diagnostic instrument for children aged 6-18 years, which can be self-administered or by interview. The instrument consists of 140 items (20 items on competencies and 120 items on behavioural and emotional problems). It is one of the instruments that are part of the Achenbach System of Empirically Based Assessments (ASEBA), along with the Youth Self Report[121] for the child and another for teachers.[122]

Domains	Empirically Based Syndrome Scales
Internalizing Problems	Anxious/Depressed
	Withdrawn/Depressed
	Somatic complaints
	Social Problems
	Thought Problems
	Attention Problems
Externalizing Problems	Rule-Breaking Behaviour
	Aggressive Behaviour
DSM-oriented Scales	
Internalizing Problems	Affective Problems
	Anxiety Problems
	Somatic Problems
Externalizing Problems	Attention Deficit/Hyperactivity Problems
	Oppositional Defiant Problems
	Conduct Problem
2007 Modules	
Problems	Obsessive-Compulsive Problems
	Posttraumatic Stress Problems
	Sluggish Cognitive Tempo (not on YSR)
Positive Qualities	Positive Qualities

Child Depression Inventory

The *Child Depression Inventory (CDI)*[123] is a brief self-report test that helps assesses cognitive, affective and behavioural signs of depression in children and adolescents 7 to 17 years old.

Scales

- Emotional Problems
- Functional Problems

Subscales

- Negative Mood/Physical Symptoms
- Negative Self-Esteem

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[120] Achenbach, T.M. 1991a
[121] Achenbach, T.M. 1991b.
[122] Achenbach, T.M. 1991c.
[123] Kovacs, M. 1985.

- Interpersonal Problems
- Ineffectiveness

Child Domestic Workers: Research And Action[124]

Domains	Indicators
Terms of employment	Wage; recruitment; contract with the employer; relationship with parents; child's understanding of the agreements etc.
Working conditions	Tasks the child performs; breaks; accidents; working hours; opportunity for leisure; annual leave; opportunity to leave the house
Living conditions	Sleeping; eating
Household composition of the employer's house	Number of people; facilities; does the child receive separate treatment?
Treatment of the Child Domestic Worker	Treated by family; level of satisfaction; how is the child disciplined?
Socio-economic background	Family situation; religion; ethnicity; siblings; reasons for beginning with child domestic work; level of decision of the child in starting the work as a child domestic work
Impact of the employment on the child's physical, intellectual and psycho-social development	Children who live away from their parents in a remote place; the informal guardian/recruiter is living nearby; limited free time; isolation and discrimination has a negative impact on her self-esteem, sense of identity and ability to socialize; verbal and physical abuse; employer only disciplines the child and does not take up the parental role (failing to guide and encourage); denial of play and recreation.
Social relationships and separation from parents	Who in the house is the child closest to?; does the child have awareness of what goes on outside of the house?; does the child have friends of her own age?; distance to family; frequency of contacts with family; relationship with family member (exploitive nature); time to visit family
Physical Health	Prone to accidents; suffering from illness?; how often?; hours of work; accidents; food; exposure to hazards; preventive health mechanisms; availability of doctors and health professionals
Psychosocial health and development	Enjoy to work?; child's mood; behaviour of the child; child's attitude (to work, employer, parents); response of the child to discipline; employer gives training to the child outside of home duties; isolation; discrimination; negative effects on: self-esteem, self-identity, ability to socialize and make friends; verbal and physical abuse; employer only assumes to take up the 'parental role' in a disciplinary way (verbal or physical punishment); denial of play, recreation and socialization
Schooling	Level; reading and writing abilities; knowledge about rights; employer's view on school attendance of child
Outlook on the future	Perception of parents, children and employers of the child's future; what does the child like to do in the future?

Children's Global Assessment Scale (CGAS)

The *Children's Global Assessment Scale (CGAS)*[125] is a global measure of children's general functioning based on the Global Assessment Scale for adults (GAS). It assesses the functional competence of the child and has been used as an indicator of the need for clinical services as well as an indicator of impairment in epidemiological studies. A child's general functioning can be rated on a numeric scale from 1-100, independent of the mental health diagnosis.

[124] Black, M. 2005
[113] Shaffer, D., et al. 1983.

Level of functioning	Description
Superior functioning	At ease in all areas (at home, at school and with peers); involved in a wide range of activities and has many interests (hobbies, participation in extracurricular activities, belongs to an organised group such as scouts); likeable, confident; everyday worries never get out of hand; doing well in school; no symptoms.
Good functioning in all areas	Secure in family, school, and with peers. There may be transient difficulties and everyday worries that occasionally get out of hand (e.g., mild anxiety associated with an important exam, occasional 'blow-ups' with siblings, parents or peers).
No more than slight impairments in functioning	At home, at school, or with peers; some disturbance of behaviour or emotional distress may be present in response to life stresses (for example, parental separations, deaths, birth of a sib), but these are brief and interference with functioning is transient; such children are only minimally disturbing to others and are not considered deviant by those who know them.
Some difficulty in a single area but generally functioning pretty well	For example, sporadic or isolated antisocial acts, such as occasionally playing hooky or petty theft; consistent minor difficulties with school work; mood changes of brief duration; fears and anxieties which do not lead to gross avoidance behaviour; self-doubts); has some meaningful interpersonal relationships; most people who do not know the child well would not consider him/her deviant but those who do know him/her well might express concern.
Variable functioning with sporadic difficulties or symptoms in several but not all social areas	Disturbance would be apparent to those who encounter the child in a dysfunctional setting or time but not to those who see the child in other settings.
Moderate interference in functioning in most social areas or severe impaired functioning in one area	Such as might result from, for example, suicidal preoccupations and ruminations, school refusal and other forms of anxiety, obsessive rituals, major conversion symptoms, frequent anxiety attacks, poor to inappropriate social skills, frequent episodes of aggressive or other antisocial behaviour with some preservation of meaningful social relationships.
Major impairment in several areas and unable to function in one of these areas	e.g. disturbed at home, at school, with peers, or in society at large, persistent aggression without clear instigation; markedly withdrawn and isolated behaviour due to either mood or thought disturbance, suicidal attempts with clear lethal intent; such children are likely to require special schooling and/or hospitalisation or withdrawal from school (but this is not a sufficient criterion for inclusion in this category.
Unable to function in almost all areas	For example, stays at home, in ward, or in bed all day without taking part in social activities or severe impairment in reality testing or serious impairment in communication (e.g. sometimes incoherent or inappropriate.
Needs considerable supervision	To prevent hurting others or self (e.g. frequently violent, repeated suicide attempts) or to maintain personal hygiene or gross impairment in all forms of communication, e.g. severe abnormalities in verbal and gestural communication, marked social aloofness, stupor, etc.
Needs constant supervision	24-hour care, due to severely aggressive or self-destructive behaviour or gross impairment in reality testing, communication, cognition, affect or personal hygiene.

Child and Youth Resilience Measure

The *Child and Youth Resilience Measure-28 (CYRM-28)*[126,127] is a screening tool for youth between the ages of 12-23 years old which explores resources at the individual, relational and community/cultural level that contribute to the child's resilience. The CYRM-28 has good psychometric properties and in investigate resilience across different cultural settings. The CYRM has

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[126] Ungar, M.; Liebenberg, L. 2009.
[127] Resilience Research Centre. 2015.

been used in different studies which have indicated that the instrument can be used for screening purposes and to make comparisons between groups.

In the CYRM-28 *Resilience* is defined as:

- The capacity of individuals to navigate their way to resources that sustain well-being.
- The capacity of individual's physical and social ecologies to provide those resources.
- The capacity of individuals, their families and communities to negotiate culturally meaningful ways for resources to be shared.

Domains	Questions
Feeling of minority or superiority	" I have people I look up to"
Behaviour in social settings	"I cooperate with people around me"; " I know how to behave in different social settings"; "People think I am fun to be with";
Relationship at the community level	" I know where to go to in my community to get help"; " I am treated fairly at my community"; "I think it is important to serve my community";
Relationship with friends	" I feel supported by my friends"; "My friends stand by me during difficult times"
Relationship with parents, family or caregiver	"My parents/caregivers watch me closely"; My parents/caregivers watch me closely; " I talk to my family/caregiver(s) about how I feel; " My family stands by me during difficult times"; " I feel safe when I am with my family/caregiver(s)"
School	" I feel I belong at my school"
Availability of food and resources	"If I am hungry, there is enough to eat"
Existential meaning giving	"Spiritual beliefs are a source of strength for me"; " I participate in organized religious activities";
Ethnicity & culture	"I am proud of my ethnic background"; "I enjoy my family's/caregivers' cultural and family traditions; " I enjoy my community's traditions"; "I am proud to be (Nationality)"
Belief in self-efficacy and solving problem capacity & getting the oportunity to show responsibility	" I try to finish what I start"; "I am able to solve problems without harming myself and others"; " I have opportunities to show others that I am becoming an adult and can act responsibly"; "I am aware of my own strengths";
Having the opportunity to develop useful skills. To receive education.	" Getting an education is important to me"; " I have the opportunity to develop skills that will be useful later in life"

Note: The above categories were not defined as such in the instrument.

Indicators

- Having positive mentors and role models
- Balanced dependence and independence
- Cooperation and social competence, problem solving capacity, a sense of humour
- Access to school, information and learning resources
- Feelings of inferiority or superiority
- Emotionally expressive family and level of family support
- Availability of food
- Spiritual beliefs, religious practices, cultural and spiritual identification
- Abstinence from substances like alcohol and drugs
- Community and government facilities
- Feeling of belonging to a school/community

- Self-awareness, self-efficacy and a sense of own strengths
- Opportunity to develop useful skills

Conflicts Tactics Scale

The Conflict Tactics Scale (CTS) created by Murray A. Straus, is an instrument that is used to identify partner violence. There are two versions of the Conflict Tactics Scale, the Revised Conflicts Tactics Scale-2 (CTS2) and the parent-child CTSPC. The CTS has been widely used in peer-reviewed scientific studies as well as longitudinal birth-cohort studies. Nevertheless, although widely used the CTS also has received critique for its exclusion of context related variables, severity and motivational factors in understanding intimate partner violence.

Scales

- Physical assault
- Psychological aggression
- Negotiation
- Injury
- Sexual coercion

Presence or absence of risk factors		
Having a stepfather	-	Higher risk
Not having a stepfather	-	Lower risk
Separated from mother	-	Higher risk
Not separated from mother	-	Lower risk
Being emotional distant to mother	-	Higher risk
Not being emotional close to mother	-	Lower risk
Non-completion of high school mother	-	Higher risk
Completion of high school mother	-	Lower risk
Family income less than $10,000	-	Higher risk
Family income greater than $10,000	-	Lower risk
Lack of physical affection father	-	Higher risk
Physical affection from father	-	Lower risk
Sexually punitive mother	-	Higher risk
Not sexually punitive mother	-	Lower risk
Having less than two good friends	-	Higher risk
Having more than two good friends	-	Lower risk

Core Self-Evaluations

Core self-evaluation (CSE) is a relatively new concept which integrates self-esteem, locus of control, generalized self-efficacy and emotional stability. Developed by Judge and Hurst,[128] CSE predicts many work and other applied outcomes better than when these individual traits are measured

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[128] Judge, T. A. & Hurst, C. (2007)

alone. Individuals with positive core self-evaluations may be particularly adept at translating early advantages into later economic success.

Data were obtained using a self-report questionnaire from the National Longitudinal Survey of Youth (NLSY79) in the United States who were 14 to 22 years old when they were first interviewed in 1979 (and thus were between 37 and 45 years old in 2002).

Questions

1. I have little control over the things that happen to me. (reverse scored)
2. There is little I can do to change many of the important things in my life. (reverse scored)
3. What happens to me in the future mostly depends on me
4. I feel that I am a person of worth, on an equal basis with others
5. I feel that I have a number of good qualities
6. All in all, I am inclined to feel that I am a failure. (reverse scored)
7. I feel I do not have much to be proud of. (reverse scored)
8. I wish I could have more respect for myself. (reverse scored)
9. I've been depressed. (reverse scored)
10. I've felt hopeful about the future
11. What happens to me is of my own doing
12. When I make plans, I am almost certain to make them work.

Three items were taken from "The Stress Process".[129] Five items were taken from *Society and the Adolescent Self-image* (Rev. ed.).[130] Two items were taken from the Center for Epidemiological Studies Depression Scale.[131] Two items were taken from the internal-external locus of control measure in "Generalized Expectancies for Internal Versus External Control of Reinforcement."[132] These items were evaluated on a 1–4 Likert-type scale.   The internal consistency reliability (coefficient alpha) of this scale was .80.

Diagnostic Interview for Children and Adolescents

The *DICA-IV* [133]is a complete structured interview based on the DSM-IV (Diagnostic Statistical Manual).[134] The instrument screens for a broad range of behavioural and emotional problems with children and youth, that are also included in the DSM-IV. Moreover, the instrument identifies factors that could potentially be considered as dangerous forms of behaviour (e.g. suicidal thoughts, violent behaviour, drug abuse and critical life events). It has proven to be a reliable instrument for the use with children and youth that efficiently screens for a broad range of behavioural problems, and therefore it gives the opportunity to quickly identify the areas which need attention.

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[129] L. I. Pearlin, M. A. Lieberman, E. G. Menaghan, and J. T. Mullan (1981)
[130] M. Rosenberg (1989)
[131] See Radloff (1977); Eaton, et al. (2004); Ross and Mirowsky, 1989
[132] J. B. Rotter, (1966)
[133] Herjanic, B.; Reich, W. 1982.
[134] American Psychiatric Association. 2000.

Disability Assessment Schedule (WHO)

The *World Health Organization Disability Assessment Schedule (WHO DAS 2.0)*[135] is a generic assessment instrument to measure aspects of health and disability. The instrument is available in 11 versions and 16 languages and can be self-administered or administered through an interview. It is a diverse instrument that can be used across a wide range of diseases, including mental, neurological and addictive disorders in clinical as well as cross-culturally be used with diverse adult populations, producing standardized disability levels.

The WHO DAS 2.0 is conceptually developed on the basis of the ICF: International Classification of Functioning, Disability and Health, covering six relevant life domains: Cognition, Mobility, Self-Care, Getting Along, Life activities, Leisure, work and school and Participation. The information of the WHO DAS 2.0 can be used to track functioning over time, to measure effectiveness of treatment and to match clients with interventions.

Domains (levels of experiencing difficulty)

- Overall Health
- Standing for long periods
- Household responsibilities
- Learning a new task
- Concentrating on doing something
- Walking for a long distance
- Washing your whole body
- Getting dressed
- Dealing with people you do not know
- Maintaining a friendship
- Day to day work

Future Expectations Scale for Adolescents (FESA)

Adolescent future orientation has been described as "the images individuals develop concerning their selves in the future and express in terms of hopes and fears."[136] Optimism towards the future is an important predictor of adolescents' outcomes as it acts as a basis for goal setting, exploration and planning for the future.[137] This is a self-report questionnaire of 25 items which assesses the degree to which the respondent believes a series of statements about his or her future. The items focus on work and educational attainment, expectations for marrying and having children, participation in the community via sports and faith community, and leadership expectations. It was first tested with Chilean students between the ages of 12 years to 19 years. Answers range along a 7-point scale anchored by "I do not believe this at all" and "I certainly believe this." Full-scale internal consistency for the FESA was .88. Items include the following:

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[135] World Health Organization. 2015c.
[136] Seginer, R. (1988), p. 152
[137] McWhirter, E.H. and McWhirter, B. (2008)

Work and education	When I am an adult... I will achieve the level of education that I want; I will always have enough to eat and live on; I will accomplish what I want to do with my life; I will acquire the things I want; The money I earn with my spouse will be sufficient; My work will give me opportunities to feel proud of myself; I will find good work; I will find stable work; I will find work I enjoy; I will feel satisfaction with myself.
Marriage and family	When I am an adult... I will get married; I will get married before I am 25 years old; My marriage will last forever; I will have children.
Church and Community	When I am an adult... I will regularly go to Mass or other religious services; I will participate in many church activities; I will be a leader in my community.
Health	When I am an adult... I will participate in sports in my community; I will have a healthy diet; I will have good health; I will have a long life.
Children's future	When I am an adult... I will provide my children with a safe place to live; My children will live in a time of peace; My children will have a long life

General Health Questionnaire (GHQ 12)[138]

This self-report instrument is intended for use with adolescents (16+) and adults. The GHQ has been shown to be valid and useful in both clinical and general populations as a measure of current mental health. If focuses on two major areas – the inability to carry out normal functions and the appearance of new and distressing symptoms.   Originally developed as a 60-item instrument, a range of shortened versions of the questionnaire are available (GHQ-30/28/20/12). The 12 item version has been shown to be as effective as the 30 item version.

Each item is rated on a four-point scale. Internal consistency has been reported in a range of studies using Cronbach's Alpha, with correlations ranging from 0.77 – 0.93.

Questions

Recently, have you …

- Been able to concentrate on whatever you are doing;
- Lost much sleep over worry;
- Felt that you are playing a useful part in things;
- Felt capable of making decisions about things;
- Felt constantly under strain;
- Felt you couldn't overcome your difficulties;
- Been able to enjoy your normal day to day activities;
- Been able to face up to your problems;
- Been feeling unhappy and depressed;
- Been losing confidence in yourself;
- Been thinking of yourself as a worthless person;
- Been feeling reasonably happy, all things considered

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[138] Goldberg and Williams (1988)
(Note: instrument is Copyrighted. NFER Publishing Company, Darville House, 2 Oxford Road East, Windsor SL4 1DF)

General Well-Being[139]

These questions ask young people about how things have been during the past month. There are two subscales

- Psychological Distress (PD) = 5,7,9,11,13,14,16,17,19,20
- Psychological Well-Being (PWB) = 1,2,3,4,6,8,10,12,15,18

Questions

- How happy, satisfied, or pleased have you been with your personal life during the past month?
- How much of the time, during the past month, has your daily life been full of things that were interesting to you?
- How much of the time, during the past month, did you feel relaxed and free of tension?
- During the past month, how much of the time have you generally enjoyed things?
- Did you feel depressed during the past month?
- When you got up in the morning, during the past month, about how often did you expect to have an interesting day?
- During the past month, how much of the time have you felt tense or 'high-strung'?
- How much of the time, during the past month, have you felt calm and peaceful?
- How much of the time, during the past month, have you felt downhearted and blue?
- How much of the time, during the past month, were you able to relax without difficulty?

HSE Management Standard Indicator Tool[140]

The U.K. Health Service Executive has developed a 35-item questionnaire relating to the six primary stressors identified in the Management Standards for work-related stress. The items are based on the best available evidence linking work design to health outcomes. It has been designed to support the process called for in the Management Standards by providing organisations a broad indication of how well their workforce rates their performance in managing the risks associated with work-related stress.

Domains	Description
Demands	Includes issues such as workload, work patterns and the work environment.
Control	How much say the person has in the way they do their work.
Support	This includes the encouragement, sponsorship and resources provided by the organisation, line management and colleagues.
Relationships	This includes promoting positive working to avoid conflict and dealing with unacceptable behaviour
Role	Whether people understand their role within the organisation and whether the organisation ensures they do not have conflicting roles.
Change	How organisational change (large or small) is managed and communicated in the organisation.

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[139] Veit & Ware (1983); Heubeck & Neill (2000).
[140] See http://www.hse.gov.uk/stress/standards/downloads.htm.

International Classification of Functioning, Disability and Health

The *International Classification of Functioning, Disability and Health: Children and Youth Version (ICF-CY)*[141] belongs to the family of international classifications developed by the World Health Organization for application to various aspects of health.[142] It is not an instrument but a system designed to record characteristics of the developing child and the influence of environments surrounding the child. This derived version of the ICF can be used by providers, consumers and all those concerned with the health, education, and well-being of children and youth. It provides a common and universal language for clinical, public health, and research applications to facilitate the documentation and measurement of health and disability in child and youth populations. It can assist clinicians, educators, researchers, administrators, policy makers and parents to document the characteristics of children and youth of importance for promoting their growth, health and development.

Multidimensional Neglectful Behaviour Scale

The *Multidimensional Neglectful Behaviour Scale (MNBS)*[143] is intended to measure neglect of four basic developmental needs: (1) neglect of physical needs such as food, clothing, shelter, medical care; (2) emotional needs such as affection, companionship, support; (3) supervisory needs such as setting limits, attending to misbehaviour, knowing child's whereabouts and friends; and (4) cognitive needs such as reading to the child, and explaining things. The version of the MNBS described in this paper can be used in interview or questionnaire format with adolescents to describe their current situation, or for adults to describe neglectful behaviour when they were growing up.

Domains	Indicators (such as)
Emotional Neglect	The parent does not watch the child when he or she is playing; does not tell the child he or she is being loved; does not make the child feel when better when he is sad or scared.
Cognitive Neglect	The parent does not talk a lot with the child; does not read books to the child; does not help the child when he or she has problems understanding things.
Supervisory Neglect	The child's parent does not try to find out where the child is going after school; leaves the child in the car for a long time; does not know any of his or her friends.
Physical Neglect	The parent does not ensure the child gets a bath or has enough food to eat; the child does not go to the doctor or dentist for routine check-ups.
Abandonment	The parent left the child for a couple of days at home without an adult; left the child somewhere and did not come back.
Exposure to conflict	The child hears adults fighting in the house; the child sees grown-ups in the house hitting each other.
Alcohol use	Parents of the child get drunk; parents let the child drink beer.
General appraisal	The child feels as if no one takes care of him or her; the child does not feel someone loves him or her; the child feels hungry a lot.
Child depression	

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[141] World Health Organization. 2007.
[142] World Health Organization. 2001.
[143] Kaufman Kantor, G. et al. 2004; quoted in Strauss, J. 2015 (Strauss et al.: http://pubpages.unh.edu/~mas2/NS1F.pdf).

Parental Authority Questionnaire (PAQ)

The PAQ[144] is a 30 item retrospective scale which is administered to children and completed for both male and female primary caregivers. The items of the scale represent three forms of parental prototypes: 1) the permissive type 2) the authoritarian type, and 3) the authoritative type. Three forms of questions pertaining to these types derived from the survey for female caregivers are:

1. "While I was growing up, my mother felt that in a well-run home the children should have their way in the family as often as their parents do"
2. "Even if her children didn't agree with her, my mother felt that it was for her own good if we were forced to conform to what she thought was right"
3. "As I was growing up, once family policy had been established, my mother discussed the reasoning behind the policy with the children in the family"

Personal Wellbeing Index – School Children[145]

Quality of life is emerging as a central construct within many disciplines, it offers an alternative to some traditional disciplinary views about how to measure success. It focuses attention on the positive aspects of people's lives, and it extends the traditional objective measures of health, wealth, and social functioning to include subjective perceptions of well-being. The *Personal Wellbeing Index* is an instrument that measures the quality of life. It has seven items, each of them relate to a quality of life domain.

Domains

- Standard of Living
- Personal Health
- Achievement in Life
- Personal Relationships
- Personal Safety
- Feeling Part of the Community
- Future Security

Reporting Questionnaire for Children [146]

The *Reporting Questionnaire for Children (RQC)* is a 10-item instrument administered verbally to the caregivers of children. It was developed as part of a World Health Organization (WHO) collaborative study involving seven countries. The tool was designed as part of a two-stage screening and assessment protocol. The RQC was intended to be the first stage screen for developmental disability (then called mental retardation), significant degrees of emotional and behavioural disorder and psychotic disorders. The second stage was a standardized psychiatric interview. Appropriate target populations Children between the ages of 5 and 15.

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[144] Buri, J.R. 1991
[145] Cummins, R.A.; Lau, A.L. 2005.
[146] Giel, R. et al 1981 (see
http://knowledgex.camh.net/amhspecialists/Screening_Assessment/screening/screen_CD_youth/Pages/RQC.asp) - Berger, R.M.; Delgado, L.K.; Graybill, D. 1994.

Indicators

- Abnormal speech
- Poor sleep
- Fits or falling (convulsion)
- Frequent headache
- Escape from home
- Stealing (from home)
- Excess fear (nervous/afraid)
- Slow response (retarded)
- Lonely (difficulty getting along with others)
- Elimination problems (wetting or soiling)

As for the measurement of self-esteem, consideration should be given to whether a more general measure of self-esteem should be included (e.g. the full version of RSES) or whether the scale should refer to a particular domain of functioning.

Review of Personal Effectiveness with Locus of Control (ROPELOC)

This self-report instrument[147] has scales similar to the Life Effectiveness Questionnaire, but also includes Cooperative Teamwork, Locus of Control and a Control Scale. The ROPELOC provides a short and easily administered questionnaire that assesses individual's effectiveness in life.[148] The language used is suitable for early high school students through to adults. The ROPELOC instrument has been developed to tap into key actions and behaviours that indicate a person's effectiveness in a variety of areas. It contains 14 scales including:

1. *Personal abilities and beliefs* – self-confidence, self-efficacy, stress management, open thinking.
2. *Social abilities* – social effectiveness, cooperative teamwork, leadership ability.
3. *Organisational skills* – time management, quality seeking and coping with change.
4. An *'energy' scale* called Active Involvement
5. And a measure of overall effectiveness in all areas of life.

The two Locus of Control scales measure the person's tendency to take responsibility for their actions and successes or to see external controls determining actions.

Domains	Questions
Active involvement	I prefer to be actively involved in things; I like being active and energetic; I like to get into things and make action
Cooperative teamwork	I like cooperating in a team; I cooperate well when working in a team; I am good at cooperating with team members.
Leadership ability	I can be a good leader; I am capable of being a good leader; I am seen as a capable leader.
Open thinking	I am open to different thinking if there is a better idea; I am open to new thoughts and ideas; I can adapt my thinking and ideas.

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[147] Richards, G. E , Ellis, L. A. and Neill, J. T. (2002).
[148] Richards, Ellis & Neil, 2002, 2015.

Domains	Questions
Quality seeking	In everything I do I try my best to get the details right; I try to get the best possible results when I do things; I try to get the very best results in everything I do.
Self confidence	I am confident that I have the ability to succeed in anything I want to do; when I apply myself to something I am confident I will succeed; I am confident in my ability to be successful.
Self-efficacy	No matter what the situation is I can handle it; No matter what happens I can handle it; I can handle things no matter what happens.
Social effectiveness	I am effective in social situations; I am competent and effective in social situations; I communicate effectively in social situations.
Stress management	I am calm in stressful situations; I can stay calm and overcome anxiety in almost all situations; I am calm when things go wrong.
Time efficiency	I plan and use my time efficiently; I am efficient and do not waste time; I am efficient in the way I use my time.
Coping with change	I cope well with changing situations; When things around me change I cope well; I can cope well when things change.
Overall effectiveness	My overall effectiveness in life is very high; Overall, in all things in life, I am effective; Overall in my life I am a very effective person.
Internal locus of control	My own efforts and actions are what will determine my future; What I do and how I do it will determine my success in life; If I succeed in life it will be because of my efforts.
External locus of control	Luck, other people and events control most of my life; My future is mostly in the hands of other people; My life is mostly controlled by external things.
Control items	I prefer things that taste sweet instead of bitter; I solve all mathematics problems easily.

All of the items are rated on a Likert scale of 1 (False, Not like me) to 8 (True, Like me). Its reliability is tested as follows: Active Involvement (AI = .80); Cooperative Teamwork (CT = .85); Leadership Ability (LA = .91); Open Thinking (OT = .83); Quality Seeking (QS = .83); Self Confidence (SC = .84); Self-Efficacy (SF = .87); Social Effectiveness (SE = .88); Stress Management (SM = .86); Time Efficiency (TE = .86); Coping with Change (CH = .93); Overall Effectiveness (OE = .82); Internal Locus of Control (IL = .80); External Locus of Control (EL = .79). While there are only three items for each of the subscales above, it has proven difficult to identify stand-alone scales to measure these concepts. Despite there are only being a few items per subscale the measure has displayed good reliability and is quick and easy to administer.

Revised Life Orientation Test (LOT-R)

This self-report instrument was developed in the U.S. by Scheier et al.[149] It is the most commonly used assessment of optimism and consists of ten questions:

1. In uncertain time, I usually expect the best;
2. It's easy for me to relax;
3. If something can go wrong for me, it will;
4. I'm always optimistic about my future;
5. I enjoy my friends a lot;
6. It's important for me to keep busy;
7. I hardly ever expect things to go my way;
8. I don't get upset too easily;

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[149] Scheier, M. G., Carver, C. S. and Bridges, M. W. (1994)

9. I rarely count on good things happening to me;
10. Overall, I expect more good things to happen to me than bad.

Items are scored on a five-point Likert scale as follows: 0 = strongly disagree, 1 = disagree, 2 = neutral, 3 = agree, 4 = strongly agree. Items 1, 3, 4, 7, 9, and 10 are summed to obtain an overall score. (Items 2, 5, 6, and 8 are filler items only, they are not scored as part of the revised scale.) The LOT-R has good internal consistency (Cronbach's alpha runs in the high .70s to low .80s) and is quite stable over time.

Revised Behaviour Problem Checklist[150]

The Revised Behaviour Problem Checklist (RBPC) is used to rate problem behaviours observed in adolescents and young children. The RBPC has been used for a variety of purposes: to screen for behaviour disorders in children; as an aid in clinical diagnosis; to measure behaviour change associated with psychological and pharmacological interventions; as part of a battery to classify juvenile offenders; and to select subjects for research on behaviour disorders in children and adolescents.

Developer	Herbert C. Quay, Donald R. Peterson (1996)
Population	Validated with African-American, Caucasian and Hispanic/Latino populations.
Method	Parent/Teacher/Therapist report.
Items	The scales consists of 89 items which measure the following subscales: Conduct Disorder, Socialized Aggression, Attention Problems - Immaturity, Anxiety-Withdrawal, Psychotic Behaviour, Motor Tension-Excess
Scoring	Likert scale.
Reliability	The range of internal consistency 0.73 – 0.94.
Notes	Permission is required to use this instrument and can be sought from Psychological Assessment Resources, Inc.

Rosenberg Self-Esteem Scale

- I feel that I am a person of worth at least on an equal plane with others.
- I feel that I have a number of good qualities.
- All in all, I am inclined to feel that I am a failure.
- I am able to do things as most other people.
- I feel I do not have much to be proud of.
- I take a positive attitude towards myself.
- On the whole I am satisfied with myself.
- I wish I could have more respect for myself.
- I certainly feel useless at times.
- At times I think I am no good at all.

Agency /Self-Efficacy (closely related to self-esteem is *self-efficacy*, see Bandura, 1977)[4]

- If I try hard, I can improve my situation in life.
- Other people in my family make all the decisions about how I spend my time.

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[150] http://www4.parinc.com/Products/Product.aspx?ProductID=RBP

- I like to make plans for future studies and work.
- I have no choice about the work I do – I must do this sort of work.
- If I study hard at school, I will be rewarded by a better job in the future.

Careful distinction is needed between self-efficacy and other constructs such as self-esteem, locus of control and outcome expectancies. Locus of control is concerned with the belief as to whether outcomes are determined by one's actions or by forces outside of one's control. Outcome expectations refer to outcomes that are likely to result from a situation. Consideration should be given to whether a general measure self-efficacy should be included or whether self-efficacy should focus on a specific domain such school, work or time use.

General Perceived Self-Efficacy Scale[151]

- I can always manage to solve difficult problems if I try hard enough.
- If someone opposes me, I can find the means and ways to get what I want.
- I am certain that I can accomplish my goals.
- I am confident that I could deal efficiently with unexpected events.
- Thanks to my resourcefulness, I can handle unforeseen situations.
- I can solve most problems if I invest the necessary effort.
- I can remain calm when facing difficulties because I can rely on my coping abilities.
- When I am confronted with a problem, I can find several solutions.
- If I am in trouble, I can think of a good solution.
- I can handle whatever comes my way.

Perseverance/Grit

Grit is identified as perseverance and passion for long-term goals and entails working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress.[152] Duckworth et al. (2007) developed and validated a self-report questionnaire called the 'Grit Scale' which consisted of two subscales of 'consistency of interests' and 'perseverance of efforts.'

Grit-scale

Consistency of Interest	I often set a goal but later choose to pursue a different one; new ideas and new projects sometimes distract me from previous ones; I become interested in new pursuits every few months; my interests change from year to year; I have been obsessed with a certain idea or project for a short time, but later lost interest; I have difficulty maintaining my focus on projects that take more than a few months to complete
Perseverance of Effort	I have achieved a goal that took years of work; I have overcome setbacks to conquer an important challenge; I finish whatever I begin; setbacks don't discourage me; I am a hard worker; I am diligent

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[151] Schwarzer & Jerusalem, 1995
[152] Duckworth, A. L.; Peterson, C.; Matthews, M. D.; Kelly, D. R. 2007.

Perceived social support

The procedure for assessment is as follows:

- The respondent list all people they know whom they can count on for help or support in the manner described.
- The respondent indicates how satisfied they are with the overall support that they have.
- Whom can you really count on to distract you from your worries when you feel under stress?
- Whom can you really count on to help you feel more relaxed when you are under pressure or tense?
- Who accepts you totally, including both your worst and your best points?
- Whom can you really count on to care about you, regardless of what is happening to you?
- Whom can you really count on the help you feel better when you are feeling generally down in the dumps?
- Whom can you count on to console you when you are very upset?

Parental Support

Although the majority of research on parenting styles has been carried out on Western middle-class families, more recent research has found that it extends beyond these domains. There is now widespread evidence that authoritative parenting style, classified as high warmth and high demands, has a positive influence on the psychosocial development and academic outcomes of children in both Asian and African (Ethiopian) contexts.[153]

Self-Description Questionnaire

Developed by the SELF Research Group,[154] this questionnaire has three versions: SDQ-I for children under 12, SDQ-II for adolescents 12-16, and SDQ-III for young people between the ages of 16 and 25. This is a scale which addresses multi-dimensional self-concept and consists of several subscales, including a global measure of "self-esteem," "peer relations," "parent relations," and "emotional stability." The instruments are widely used and freely distributed, assuming the SELF Terms and Conditions are adhered to.

Self-Regulation Questionnaire[155]

The Self-Regulation Questionnaire (SRQ)156 is used to assess children's ability to regulate negative emotions and disruptive behaviour, and to set and attain goals.

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[153] Steinberg, L. 2001; Ang, R.P.; Goh, D.H. 2006; Gidey, T. 2002; Supple, A.J.; Small, S.A. 2006.
[154] See http://www.self.ox.ac.uk/Instruments.htm
[155]   http://www.performwell.org/index.php/find-surveyassessments/search-by/administration-method?value=Self-Report%20Questionnaire
[156] Brown, et al. 1999.

Indicators

- Impulsivity
- Self-control

Strengths and Difficulties Questionnaire

The *Strengths and Difficulties Questionnaire (SDQ)*[157] is a brief behavioural screening questionnaire which exists in three forms to meet the needs of different users. It has been widely used and exists in a number of languages but is not allowed to be altered in any way in order to maintain quality and comparability with existing studies.

Different factor structures have been used depending on the objectives of the study:

- A five factor structure consisting of:
  - Emotional problems (5 items)
  - Peer problems (5 items)
  - Behavioural problems (5 items)
  - Hyperactivity (5 items)
  - Pro-social behaviour (5 items)
- A three factor structure consisting of:
  - Internalizing behaviour (10 items composed of the "emotional" and "peer" subscales
  - Externalizing behaviour (10 items composed of the "hyperactivity" and "conduct" subscales
  - Pro-social behaviour
- A two factor structure consisting of:
  - Strengths ("pro-social behaviour")
  - Difficulties (combination of the four sub-scales)

There are three versions: a) self-report *(11-16 years),* b) parent or caregiver report *(3-16 years), and* c) teacher report *(3-16 years).* Each version includes between one and three of the following components:

Domains	Description
Core questionnaire	- Five factors - Three factors - Two factors
Impact supplement	These extended versions of the SDQ ask whether the respondent thinks the young person has a problem, and if so, enquires further about chronicity, distress, social impairment, and burden to others.
Follow-up questions	- Has the intervention reduced problems? - Has the intervention helped in other ways, e.g. making the problems more bearable?

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[157] Goodman, R. 1997; Goodman, R. 1999.

Domains and indicators derived from occupational health

SOBANE

The *SOBANE*[158] is a strategy of risk prevention that includes four levels of intervention; it involves the active participation of staff in screening for potential safety risks and in finding solutions. The 4 steps, as described by the European Working Conditions Observatory, are: 1) Screening: the workers and their management detect the hazards and take action to reduce the risks to the extent possible; 2) Observation: each of the remaining problems are examined in more detail, and the reasons and solutions are discussed; 3) Analysis: when necessary, an occupational health practitioner is asked to carry out measurements to develop specific solutions; 4) Expertise: in complex and rare cases, the assistance of an expert is called on to solve a particular problem. The guides of observation, analysis and expertise were developed and published with regard to the following 15 fields of risk:

- Social facilities
- Machines and Hand tools
- Safety (accidents, falls, slips)
- Electricity risks
- Explosion or fire hazard
- Work with VDU
- Musculoskeletal disorders
- Lightning
- Noise
- Thermal environment
- Dangerous chemicals
- Biological agents
- Whole body vibration
- Hand-arm vibration
- Psychosocial aspects[159], [160]

The SOBANE assumes that the worker is an adult. However, because it is comprehensive and widely recognized, it provides a useful check list of all areas that need attention in the case of juvenile workers being present. It is worth recalling that a person is considered a "child" up to the age of 18.

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[158] Malchaire, J. 2004; http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3430928/
[159] Brown, L.P.; Rospenda, K.M.; Sokas, R.K.; Conroy, L.; Freels, S.; Swanson, N.G. 2011.
[160] Stanton, J.M.; Balzer, W.K.; Smith, P.C.; Parra, L.F.; Ironson, G. 2001

Domains	Indicators
Premises and working area	Workshops, offices and working area; access, obstruction; storing space; technical maintenance; waste; floor; social premises; emergency exists, etc.
Work organization	Work organization; work circumstances; supply of the workplace; independence between neighbouring workstations; interactions and communications between different work stations; means of communication
Work accidents	Work clothes and protective measures; falls from height, fall of objects; mechanical risks; procedures in case of accidents; analysis of work accidents
Electricity, Fire and Explosion	The general wiring; material; equipment; inflammable or explosive materials; sources; firefighting devices; compartmentalisation; internal intervention team; instructions in case of fire; signposting.
Controls and Signals	Buttons; location control board; clear forms and lists
Work materials, tools and machines	Dimensions and forms; maintenances, adapted to worker; training
Work posture	Position; repetitiveness; heights; standing or sitting; help means
Effort and handling operations	Gestures and hand efforts; loads; mechanical assistance devices; training; tiredness at the end of the day
Lightning	General lightning; daylight and view outside; shades; Lightning uniformity
Noise	In the workshop, in the offices; locations of the workstation; means of communication; noisy machines and installation; holes and openings
Chemical and Biological risks	Risks, training and procedures; labelling stock; dust, chips and vapour; chemical and biological waste; vaccination; protective clothes
Thermal environment	Heat, cold; humidity; protective clothes; drinks
Vibration	Vibrations tools; vehicles; machines; training received
Autonomy/personal responsibility	Orders and expectations; range of initiative; autonomy; freedom of contacts; degree of attention; decisions, responsibilities, errors
Work content	Work interest; qualifications; information and training; emotional load
Time constraints	Work schedules and program; work rate; group autonomy; work interruptions, breaks
Work relationships between workers and hierarchy	Communications during work; allocation of work; mutual assistance between workers; consultation about the work; the hierarchy, relations with the hierarchy; workers suggestions and remarks, evaluations
Psychosocial environment[161]	Promotions; discriminations; employment; salary; company council and safety comities; psychosocial problems: dissatisfaction, stress harassment & support facilities; information given; preventive actions are carried on; living conditions: allow person professional development, compatible with private life; all the workers are on the whole satisfied
Demands	Includes issues such as workload, work patterns and the work environment.
Control	How much say the person has in the way they do their work.
Support	This includes the encouragement, sponsorship and resources provided by the organisation, line management and colleagues.
Relationships	This includes promoting positive working to avoid conflict and dealing with unacceptable behaviour
Role	Whether people understand their role within the organisation and whether the organisation ensures they do not have conflicting roles.
Change	How organisational change (large or small) is managed and communicated in the organisation.

Following is a compilation of instruments which have been produced to study occupational psychology which may have particular relevance to measuring occupational stress of young workers. It was compiled, in part, by Drs. Leka and Jain.

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[161] Rospenda, K.M.; Richman, JA. 2004; Fitzgerald, L.F.; S.L. Shullman, N.; Bailey, N.; Richards, M.; Swecker, J.; Gold, Y.; Ormerod, M.; Weitzman, L. 1988

CANEVAS [162]

This is an instrument for company analysis. Its objective is to produce a company stress diagnosis at a given moment. It involves an initial global evaluation of the situation at the level required (service, department, company, or organisation) in terms of risks and evidence of stress. It measures activities in terms of the task, autonomy, role, decision-making latitude and risk. It measures the work environment in terms of its context, organisational structure, career, earnings, and interpersonal relations. It also looks at individual mediators, such as family stress, personality, values, capacity, experience, and health. It has 70 items including facts about the company (physical environment, information exchange dynamics, company culture, psychosocial factors, working conditions, and working hours). Analysis is based on four concepts: integration, mastery, transparency, and requirements. It is in French only.

Copenhagen Psychosocial Questionnaire (COPSOQ) [163]

The objective of this instrument is to identify psychosocial factors, stress, individual health/well-being, personality factors (coping style, sense of coherence, etc.) in the environment and among the workers. It measures cognitive demands; commitment; freedom; requirements (implicit or explicit) to hide emotions; emotional demands; feedback; influence; insecurity; satisfaction; meaningfulness; career; predictability; leadership; quantitative demands; role clarity; role conflicts; community feeling; sensorial demands; social relations/support; mental/physical health; coherence; and behavioural stress.

There are two versions: Long (141-item) for researchers; medium (95-item) for work-environment professionals; brief (44-item) for non-professionals in the workplace. It is produced in Dutch, Chinese, Danish, English, Flemish, German, Croatian, Malaysia, Norwegian, Persian, Portuguese, Spanish, and Swedish.

Effort-Reward Imbalance (ERI) [164]

The objectives of this tool are to examine the relationship between efforts and rewards as a determinant of well-being. In terms of measures, it uses three unidimensional scales: effort (6 items on quantitative/qualitative load, overall increase, physical load); reward (11 on financial, esteem, career, security, etc.); over commitment (6 or 29 items). There is a short version (23 items), and a long one (46 items). It is produced in German, Chinese, Czech, Danish, Dutch, English, Finish, French, Italian, Japanese, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish.

Finnish Institute of Occupational Health Checklist [165]

The Finnish Institute has produced a checklist to aid observation of the workplace for the purpose of assessing job stressors (psychosocial, physical, or chemical). It identifies twelve types of stressor

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[162] Delaunois, M.; Malchaire., J.; Piette, A. 2002.
[163] Kristensen, T.S. et al 2005.
[164] Siegrist, J.; et al. 2004.
[165] Hurrell, J.J. Jr.; Nelson, D.L.; Simmons, B.L. 1998.

(safety responsibilities, repetitiveness, forced pace, complex decision making, etc.). It uses a rating system based on work observations (stressors as defined and illustrated in the user manual), supplemented by supervisor/worker interviews. It is only in Finnish.

General Nordic Questionnaire (QPS NORDIC) [166]

The objective of the QPS Nordic is to identify psychological/social factors (as potential determinants of motivation, health and well-being). It measures these through the domains of job demands/control; role expectation; work/individual predictability; social interaction; leadership; communication; organisational culture/climate; work group; organisation-commitment; competence; preference for challenge; work motives/centrality; and private life interactions. There is a short (34-item) and a long (123-item) version. The languages in which it is translated are English, Danish, Icelandic, Norwegian, Suomi, Swedish, and Greek.

Job Characteristics Index (JCI) [167]

This instrument seeks to measure subjectively perceived job characteristics. This is a 30 item questionnaire which looks at the factors of skill variety; autonomy; feedback; co-worker interactions; task identity; and friendships. It is produced in English only.

Job Content Questionnaire (JCQ) [168]

The instrument explores the content of respondents' work tasks using the high-demand/low-control/low-support model of job strain development. It has three main scales of job stress development: decision latitude; psychological demands; and social support. It has two scales of work demands: physical demands and job insecurity. The recommended version has 49 items. There is also a long version (112-item) and a brief version (27-item). Widely used adaptations of the JCQ include the "Swedish Demand-Control Questionnaire" (DCQ) with 17 items of which five are on psychological job demands, six on decision latitude [2 on authority, 4 on skill discretion], and six on social support) and the Whitehall version (25 items, with 15 on decision latitude/control, four on job demands, and six on social support). It has a large number of translations: English, Bulgarian, Chinese (including Taiwanese), Czech, Dutch (including Flemish), German, Greek, French (including Canadian French), Iceland, Italian, Japanese, Korean, Malaysian, Norwegian, Polish, Portuguese (including Brazilian), Russian, Spanish (various), Swedish, and Thai.

Job Diagnostic Survey (JDS) [169]

This instrument measures skill variety; autonomy; task significance; task identity and feedback with a view to understanding subjectively perceived job characteristics. There are 15 items. It is produced in English.

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[166] Lindstrom K. et al; 2000. http://www.jcqcenter.org/The%20JCQ%20Short.html
[167] Sims, H.P.; Szilagyi, A.D.; Keller, R.T. 1976.
[168] Karasek, R.A.; Gordon, G.; Pietroskovsky, C. 1985.
[169] Hackman, J.R.; Oldman, G.R. 1975.

Job Stress Survey (JSS) [170]

The objective of the JSS is to examine severity and frequency of workplace risks. It has three main scales: job stress (-index, -severity and -frequency). Plus three job pressure (-index, -severity and -frequency) subscales and three support deficit subscales. The questionnaire has 30 items and is produced in English and French.

Life Effectiveness Questionnaire (LEQ)

LEQ measures a person's psychosocial skills which are relevant to a broad range of personal and professional situations.[171]

- *Time management*: The extent that an individual perceives that he/she makes optimum use of time.
- *Social competence*: The degree of personal confidence and self-perceived ability in social interactions.
- *Achievement Motivation*: The extent to which the individual is motivated to achieve excellence and put the required effort into action to attain it.
- *Intellectual Flexibility*: The extent to which the individual perceives he/she can adapt his/her thinking and accommodate new information from changing conditions and different perspectives.
- *Task Leadership*: The extent to which the individual perceives he/she can lead other people effectively when a task needs to be done and productivity is the primary requirement.
- *Emotional Control*: The extent to which the individual perceives he/she maintains emotional control when he/she is faced with potentially stressful situations.
- *Active Initiative*: The extent to which the individual likes to initiate action in new situations.
- *Self Confidence*: The degree of confidence the individual has in his/her abilities and the success of their actions.

Domains	Indicators
Time Management	I plan and use my time efficiently; I do not waste time; I manage the way I use my time well
Social Competence	I am successful in social situations; I am competent in social situations; I communicate well with people
Achievement Motivation	When working on a project, I do my best to get the details right; I try to get the best result when I do things; I try to do the best that I possibly can
Intellectual Flexibility	I change my thinking or opinions easily if there is a better idea; I am open to new ideas; I am adaptable and flexible in my thinking and ideas
Task Leadership	I can get people to work for me; I am a good leader when a task needs to be done; as a leader I motivate other people well when a task needs to be done
Emotional Control	I can stay calm in stressful situations; I stay calm and overcome anxiety in new or changing situations; I stay calm when things go wrong
Active Initiative	I like to be busy and actively involved in things; I like to be active and energetic; I like to be an active "get into it" person
Self Confidence	I know I have the ability to do anything I want to do; When I apply myself to something, I am confident I will succeed; I believe I can do it

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[170] Spielberger, C.; Vagg, R. 1991.
[171] Neill, Marsh & Richards, 2003

Multidimensional Organisational Health Questionnaire (MOHQ) [172]

The MOHQ looks at indicators of organisational well-being. It uses such domains as: environmental comfort; clear goals; competence valorisation; listening; information availability; conflict; relationships; problem-solving; demands; safety; effectiveness; fairness; job descriptions; social utility; openness to innovation. The questionnaire has 139 items and is only in Italian.

NIOSH Generic Job Stress Questionnaire [173]

Produced by the US National Institute of Occupational Safety and Health, this instrument examines Job characteristics, psychosocial factors, physical conditions, safety hazards, stress, health and job satisfaction. It measures psychosocial exposure (workload, responsibility, role demands, mental demands, conflict, skill underuse, employment opportunities, types of job control, etc.); individual strain (depression, somatic complaints, job dissatisfaction, illnesses) and stress-strain mediators (social support, self-esteem). It includes 22 selectable forms and has a total of 246 items. It is available in English, Chinese, Japanese, Korean, and Spanish.

NOVA WEBA Questionnaire [174,175]

The objective of this Dutch questionnaire is to identify stress-related risks. It has four main measures: control requirements/job demands (quantitative demands, control problems); control options (autonomy, contacts, organizing tasks, information provision); job composition (completeness of functions, cycle times, craftsmanship, cognitive complexity/mental effort); other risks (uncertainty, time constraints, job-education/experience fit, emotional effort/exhaustion). It has 156 items.

Occupational Stress Index (OSI) [176]

The OSI studies stress with a two-dimensional matrix. The vertical axis includes: information transmission (sensory input, central decision-making, and task performance); the horizontal axis includes: stress dimensions (underload, high demand, strictness, extrinsic time pressure, aversive/noxious exposures, vigilance/disaster potential, conflict/uncertainty). There is a generic version (65-item) and occupation-specific ones for drivers, physicians, teachers, manufacturing workers, clerical staff, air traffic controllers, and airline pilots. The languages are English, Bosnian, Serbian, Swedish.

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[172] Avallone, F.; Paplomatas, A. 2005.
[173] Hurrell, J.J. Jr.; McLaney, M.A. 1988.
[174] Dhondt, S.; Houtman, I. 1997.
[175] Huys, R.; De Rick K.; Vandenbrande, T. 2005.
[176] Belkic, K. 2003.

Occupational Stress Indicator (OSIND) [177]

The objective of this tool is to study stressful working conditions. It has three main measures: sources of pressure scale (intrinsic factors, managerial role, relationships, career/achievement, organisational structure/climate, home-work interface); stress effects (low job satisfaction, poor mental/physical health); and stress-strain mediators (coping skills, stress-prone personality). It is produced in English, Chinese and Italian and has 167 items.

Occupational Stress Inventory (OSINV) [178]

This instrument seeks to study occupational adjustment in terms of job stressors, personal strain, and coping mechanisms. It examines these with respect to three dimensions: a) Occupational Roles Questionnaire (role overload/ insufficiency/ ambiguity/ boundary, responsibility, and physical environment); b) Personal Strain Questionnaire (vocational, psychological, interpersonal and physical strain); and c) Personal Resources Questionnaire (recreation, self-care, social support, rational/cognitive coping). There is a battery of 3 questionnaires with a total of 140 items. It is produced in English and Chinese.

Occupational Stress Questionnaire [179]

This 56 item questionnaire examines occupational stress in terms of perceived work/environmental stressors, individual stress reactions, and organisational influence. It measures Job complexity; autonomy; role clarity; organisational climate; support from superiors; cooperation; work appreciation; work hazards; feedback; and time pressure. The languages are English and Finnish.

Position Analysis Questionnaire (PAQ) [180]

This is a job analysis tool to evaluate stress related to the job or the position. It has 195 items: 187 of these are regarding activities or the environment (information, mental processes, output, relationships, work station, job characteristics), and eight concern compensation. The method used is worker/supervisor interviews. Analysts rate items' strength in a particular job. It is in English.

Pressure Management Indicator [181]

This instrument, developed from the Occupational Stress Inventory, looks at workplace pressure and stress. It measures a) effects of pressure (job satisfaction, organisational satisfaction, organisational security, organisational commitment, state of mind, resilience, confidence level, physical symptoms, energy levels); b) sources of pressure (workload, relationships, recognition, organisational climate, personal responsibility, managerial role, home/work balance, daily hassles); and c) individual

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[177] Cooper, C.L., Sloan, S.J.; Williams, S. 1988.
[178] Osipow, S.; Spokane, A. 1987.
[179] Elo, A.L.; et al. 1992.
[180] McCormick, E.J.; Jeanneret, P.R.; Mecham, R.C. 1972.
[181] Williams, S.; Cooper, C.L. 1998.

differences (drive, impatience, control, influence, problem focus, social support, emotional detachment). It has 120 items and is produced in over 20 languages.

Psychosocial Working Conditions (PWC)[182]

The objective of the PWC is to determine the impact of stress from psychosocial factors in the workplace and working conditions. It has three main scales: job demands (intellectual and psychosocial resulting from overload or role conflict); job control (behavioural/cognitive); and social support. It has an additional two scales adapted from the Occupational Stress Questionnaire on well-being and wish-list for change. It is produced only in Polish and has 36 items.

RHIA/VERA[183]

This is a tool for observational job stress analysis. Its objective is to describe and evaluate stress factors thought to affect health. The domains it investigates are: work barriers; monotonous working conditions; time pressure; adverse environmental factors; time constraints; and constraints to physical necessities. The tool is in two parts: the manual with all definitions and the response sheets which are prepared for various types of analysis. It requires a 2–6 hour worksite visit including observations and worker-interviews. It is produced in German.

Stress Diagnostic Survey (SDS)[184]

The objective of this instrument is to identify specific areas of high job stress in the work environment. It has two main measures: a) individual stress due to role conflict/ambiguity, job scope, time pressure, career, responsibility, or overload; and b) organisational stress due to policy, rewards, participation, underuse, supervisory style, organisation structure, human resource management. It has 80 items and is produced in English.

Stress Profile [185]

This long set of questionnaires (224 items) looks at a number of psychosocial factors in the work environment. It has four main measures: external causes of stress (psychosocial work environment, work content, workload/control, leadership climate, physical work environment, family relationships, major life events, daily hassles/satisfactions); reactions (self-perception, sense of coherence); coping skills (problem-focused, emotion-focused, behaviour type, lifestyle); and stress reactions (physical, emotional, cognitive, burnout). It has been translated into English, Norwegian, Danish, Estonian, Finnish, German, and French.

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[182] Widerszal-Bazyl, M.; Cieslak, R. 2000.
[183] Leitner, K.; Resch, M.G. 2005.
[184] Ivancevich, J.M.; Matteson, M.T. 1976.
[185] Setterlind, S.; Larson, G. 1995. http://www.ncbi.nlm.nih.gov/pubmed/2095945

Stress Risk Assessment Questionnaire (SRA) [186]

As its name implies, this 50 item questionnaire looks at workplace stress using twelve main measures: organisational culture; demands (including physical hazards); control; relationships; organisational change; role; support; health; performance; coping with workplace pressures; need for organisational change; and stress-reduction suggestions. It is in English only.

SUVAPRO

This tool is a checklist. It is used for screening of a company for stressful situations, symptoms of stress, and anti-stress resources and for providing the basis for interventions in response to these stressors. It consists of three documents: (1) For management, questions on accidents, absence, material damage, accidents, job security; deadline stress-related complaints, socially isolated working stations, monotony, responsibilities, and work station. (2) For working groups, a 3-section checklist comprising: stress identification, eliminating causes of stress, improving working conditions. (3) For individuals, 10 sections on: "five illustrative cases"; explanation of stress; personal questions to identify stressors; evaluation of symptoms; resource assessment (autonomy, social network, information/participation, physical/mental fitness, organisation/planning/ work motivation). The tool includes a summary results table for identification of any immediate action, a detailed illustration on removing stressors and developing resources (facilitating organisation, planning/preparation, communication, relaxation/balance), and a discussion of "five illustrative cases" leading to construction of a personal anti-stress program. It has been produced in French, German, and Italian.

Toetsingslijst Mens & Organisatie (Questionnaire Travailleur et Organisation) (TOMO) [187]

This is an observational checklist intended for conducting an Inventory of risks associated with functions and/or departments (not individual workers). It examines: a) Task requirements: work contents (monotony, function, cycles, units, etc.); workload (time pressure, precision/concentration, underload, emotional); responsibility (too much/little, poorly defined, contradictory); knowledge/aptitudes (too high/low); b) Working relationships: functional contacts (dialogue, support, co-operation); other contacts (possibilities, work environment); superiors (feedback, support, etc.); personal integrity (space, intimacy, discriminations, sexual harassment); c) Working conditions: remuneration (level, differentiation, etc.); secondary conditions (recreation facilities, etc.); rest-working time (schedules, working time, pauses); career; d) Regulation possibilities: tasks (modality, rate/rhythm, solution of problems, external disturbances); environment (freedom of movement, work station, interruptions, contact with colleagues); organisation (dialog, working time/schedules, career); information/feedback. It consists of three documents: a) inventory of problems with a list of 54 items (evaluated by observation, interviews, and discussion); b) 137 items on preventive actions; and c) 54 items divided into four groups of measures (see above). It is in Dutch.

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[186] The Learning Trust. 2015.
[187] Orden, C.Y.D.; Gaillard, A.W.K. 1994.

Tripod Sigma Questionnaire [188]

This tool is concerned with stress management. It has 166 items divided among eight scales: procedures; hardware; organisation; communication; training/skills; incompatible goals; social support; individual defences. It is in Dutch only.

Vragenlijst Arbeid en Gezondheid (VAG)/Conseil National du Travail [189]

This questionnaire, in Dutch and French, identifies characteristics of workplace stress. It measures job content; work organisation; physical conditions, safety/equipment; relationships; physical/psychological efforts; work-private life interaction; career; health; work opinion. The complete questionnaire has 200 items, but also has an abridged version of 41 items.

Vragenlijst Beleving en Beoordeling van de Arbeid (VBBA) [190]

This instrument focuses on the causes and consequences of stress in the work environment. It measures eight dimensions: job characteristics (work pace/volume, emotional/mental load, physical effort); variety; autonomy; relationships/communication; job-related problems (task clarity/changes, information, problems); conditions (pay, career, insecurity); satisfaction (pleasure, organisational involvement, turnover); strain (need to recover, worry, sleep quality, emotional reactions, fatigue). The full questionnaire has 232 items; the abridged questionnaire has 108 items. There are also sector-specific versions. The original is in Dutch. The French translation is entitled Questionnaire sur le Véçu du Travail.

Vragenlijst Organisatie Stress - Doetinchem (VOS-D) [191, 192]

The objective of this instrument is to determine how working conditions facilitate task accomplishment for challenged workers. It has fourteen modules: overloads; role definition; over-responsibility; conflicting roles; work station immobility; decisional powers; interest in work; job security; support from superiors; from colleagues; job satisfaction; work worries; mental health; physical health. The questionnaire has 95 items, with some of them being open-ended questions. It is produced in French and Dutch.

Work Environment Scale (WES) [193]

The objective of this instrument is to measure psychosocial risk and workers' job control. The measures are: control of the work situation; resources; future; task management; risks to self/others; work planning; and time management. It has 80 items plus two additional optional questionnaires. It has been produced in French, Dutch, and English.

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[188] Wiezer, N.; Nelemans, R. 2005.
[189] Gründemann, R.W.M. et al. 1993.
[190] Van Veldhoven, M; Broersen, S. 2003.
[191] Bergers, G.P.A.; Marcelissen, F.H.G.; De Wolff, C.; Vos D. 1986.
[192] Reiche, H.M.; van Dijkhuizen, N. 1980.
[193] Moos, R.H. 1981.

Welzijn bij of Arbeid (WEDA)[194]

This is a job analysis instrument with the objective of identifying threats to well-being in terms of risks of stress and psychic overload and lack of appropriate work-training availability. It has seven dimensions: (1) completeness of work function (coherent set of tasks with preparation/support); (2) task organisation (decision-making, communication with superiors/co-workers for problem-solving); (3) avoidance of short-cycle tasks (<90 sec); (4) degree of function difficulty (balance between intensive/straightforward tasks); (5) work autonomy (rate/rhythm, task order, personal working method); (6) social contacts (superiors/co-workers); (7) information availability (individual, departmental and company levels). The method it employs is a preliminary screening by questionnaire (to determine risk groups/departments), followed by six steps:

- task analysis (inventory);
- task-condition evaluation (work-cycle time, cognitive complexity, autonomy, opportunities for contact, information);
- job control problems (capacity vs demands),
- process disturbances;
- job evaluation (see measures, above);
- reporting of results and discussion of priorities and interventions.

This instrument is in French and Dutch.

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[194] Delaunois et al 2002 (1990)

Domains and Indicators in studies of child occupational health

As noted, there are still only a limited number of studies which combine an analysis of psychological health, occupational health, and paediatrics. The following part lists several of these, giving a brief outline of the measures they used and some of the results achieved.

Health of Children Working In Small Urban Industrial Shops[195]

Dr. Iman Nuwayhid has conducted exceptional studies of health effects of child labour in small industries in Lebanon. A cross-sectional survey conducted to explore the association between work status and multiple indicators of health in a sample of Lebanese children used the following domains and indicators

Domain	Indicators
Work characteristics	Work experience; salary; work perception; relations with current employer
Socio-demographic characteristics	Age; displacement; schooling; father's education/employment; mother's education/employment; number of siblings/proportion of working siblings
Social and nutritional habits	Smoking (self, parents, friends); alcohol (self, parents, friends); activity in household; frequency of meals; kind of meal
Reported health complaints	Recent complaints; chronic illness; complaints during the last 12 months
Physical examination and laboratory tests	
Mental and Social Health	Anxiety; hopelessness; self-esteem; child's drawing: richness, inside or outside the house, general impression (negative or positive); future dreams: work related

Children at the Workplace: Special Health Risks[196]

A study group, entitled 'Special Risk Factors of Children at Work', was convened by WHO in 1987 to look at the interface between child labour and psychological health. It is worthwhile to note some of the early studies which were cited in that working group as to the variables that they investigated, and the findings which resulted:

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[195] Nuwayid, I.A.; Usta, J.; Makarem, M.; Khudr, A.; El-Zein, A. 2005
[196] World Health Organization. 1987

Studies	Findings
Oyango, P. and Kayongo-Male, D. 1983. **"Child Work and Health", proceedings of the First National Workshop of Child Work and Health in Kenya, Nairobi, Univ of Nairobi.** **Onyango, P.; Kayongo-Male, D. 1982.** *Psychological effects of child work* (Nairobi, University of Nairobi).	**Problems observed among child domestic workers:** Withdrawal; regressive behaviour; premature aging; depression; inferior status identity; resistance **Possible causes:** Deprived status of child compared to employer's children; poor social relationship in and outside of the house; total exclusion from education; tedious and strenuous work schedules; denial of expression of developmental needs; emotional disturbance resulting from physical abuse
Taylor, R.B. 1973. *Sweatshops in the sun: child work on the farm* (Boston, Beacon Press).	**Children working on plantations** Symptoms: Tired; bored; indifferent; introverted; feelings of worthlessness; fatalistic Causes: Constantly on the move (following crops, changing schools); long working hours; exhausting work
Clopper, E.N. 1970. *Child Work city streets 1912* (New York, Garrett Press).	**Children working in the streets** Symptoms: Distaste for regular employment; excessive fatigue; use of coffee, cigarettes and liquor; venereal diseases; defiance of parental control; recruitment into criminal activities; body deformation and stunting
Mendelievich, E. 1979. *Children at Work* (Geneva, International Labour Office).	**Children working in factories in Morocco** Symptoms: Inability to fantasize; impoverished mental world, lack of creativity Causes: Long hours of uninterrupted work; constant need to be alert; full time work with potentially dangerous machinery

Domains listed in the report:

- Work versus childhood
- Work vs. education
- Work vs family life
- Disadvantageous power relationships at work
- Involuntary nature of the work
- Role conflict in the child worker

Instrument for Assessing the Psychological Effects of Child Domestic Work

Domains	Indicator
Various psychological concepts relevant to assessing the psychosocial impact of child domestic work*	Low self-esteem [197]
	Chronic fear and anxiety[198]
	Impaired social skills[199]
	Helplessness and external locus of control[200]
	Pride[201]
	Depression[202]
	Low subjective wellbeing[203]
	Premature aging [204]
	Shame and stigma[205]
	Chronic stress[206]
	Loneliness (Rokach, A.; Bacanli, H. 2001)
	Maladaptive attributional style (self-blame)[207]
	Childhood emotional abuse and neglect [208]
	Effects of childhood physical abuse[209]
	Childhood sexual abuse[210]
	Effects of sleep deprivation[211]
	Apathy and hopelessness[212]
	Feelings of abandonment
	Intellectual impairment[213]
Background questions	
To be answered by the researcher:	
Administration of assessment tool	Where? (private or public); who is present?, etc.
Sex	
Race/ethnicity	Marginalized group?
To be answered by the child:	
Living place(s)	History of living places and locations; degree of poverty; rural or urban area
Caregivers, parents or other adults	Relationship; history
Chronology of family structure	Parents are together or divorced; parental death; living-in
Family income	Enough to meet basic needs; enough to keep savings

[197] Rosenberg, M. 1989

[198] Reynolds, C.R.; Richmond, B.O. 1985

[199] Galanaki, E. P.; Kalantzi-Azizi, A. 1999

[200] Wallston, K. A.; Wallston, B. S.; DeVellis, R. 1978

[201] Bautista, V.; Roldan, A.; Garces-Bacsal, M. 2001, Keltner, D.; Shiota, M. N. 2003

[202] Beck, A.T.; Ward, C.H.; Mendelson, M.; Mock, J.; Erbaugh, J. 1961

[203] Diener, E. 1984; Diener, E.; Diener, M.; Diener, C. 1995

[204] Onyango, P.; Kayongo-Male, D. 1982; Woodhead, M. 1998

[205] Ferguson, T. J.; Stegge, H.; Miller, E. R. ; Olson, M. E. 1999

[206] Chandler, L. A.; El-Samadony, E. I.; Shermis, M. D.; El-Khatib, A. T. 1991) (Panter-Brick, C.; Pollard, T. M. 1999)

[207] Wallston, K. A.; Wallston, B. S.; DeVellis, R. 1978

[208] Thompson, A.E.; Kaplan, C.A. 1996

[209] Back, S. E.; Jackson, J. L.; Fitzgerald, M.; Shaffer, A.; Salstrom, S.; Osman, M. M. 2003

[210] Finkelhor, D. 1990

[211] Johns, M.W. 1992) (Chen, N-H.; Johns, M. W.; Li, H.Y.; Chu, C-C.; Liang, S.C.; Shu, Y.H., Chuang, M.L., Wang, P.C. 2002

[212] Wallston, K. A.; Wallston, B. S.; DeVellis, R. 1978

[213] Billard, C.; Vol, S.; Livet, M. O.; Motte, J.; Vallée, L.; Gillet, P.; Marquet, T. 2002) (Wechsler, D. 2003)

Domains	Indicator
Siblings, other children in the household	Number; age; sex; ranking; relationship
Sleeping	Sleeping patterns; location of sleeping; sleeping arrangements compared to others in the household
Food	Amount of food; provider of food; quantity and quality of food compared to others in the household
Sickness or Injuries	Frequency of sickness or injuries; duration; opportunity to receive professional healthcare
Religion	Attendance to ceremonies; importance of religion in life; ability to participate in religious ceremonies as often as others in the community
School	Attendance to school; number of hours; starting age of schooling; number of interruptions; interval between the interruptions; grade-level; friends at school; plans to enrol in school; ability to read or write; ability to calculate.
Work	Kind of work, domestic work or not?; number of hours a week; age start working; job arrangements; relationship with employer and other co-workers; ability to have social interaction; verbal or physical abuse; place of the job; necessity to work to meet basic needs; who made the decision that you should work?; payment of wages; who to give the wages to rest and breaks; injuries and sickness; feeling of safety; perception on the job
Domestic work	Ever worked as a child domestic worker?; relations with children of the employer; age of the employer's children; sleeping place compared to the other children; eating compared to the other children; freedom of movement (are you allowed to leave the house unaccompanied?); opportunity to play and socialize; getting days off; religious activities; if living with the employer-distance to closest family member; opportunity to receive family visits; ethnicity and religion compared to the employer; danger and unfamiliarity of certain household objects
Living at home	Receiving a lot of critique; physical abuse; opportunity to talk, play and socialize; allowed to go to school; feeling of safety in the household
Drugs	Knowing about drugs; using drugs; availability of drugs; age starting to use drugs; frequency of using drugs; feeling to need drugs
Sex	Experiences with sex; age starting with sex; number of partners; knowing of the existence of STD's; knowing how to protect oneself; reliable use of protection; use of contraception; pregnancies, number of pregnancies; number of children
Physical abuse	Rating the frequency and severity of physical abuse; committed by who (adults or other children); were other children punished for it?; situations in which it occurs; did you tell family or friends about it?
Sexual abuse	Type and severity of sexual abuse; by whom?; in what situations?; does it cause physical pain?; are other children rebuked or punished for it?; having been injured for it? ; frequency and length of period of the abuse; description of the events; opening up about it to other family members and/ or friends
Physical complications	Physical problems; frequency; level of severity; degree of interference with personal life; awareness of the cause of the problems?
Gender	Perception on different gender; perception on gender and attending school; treatment of boys and girls in daily life
Child rights	Awareness of child rights (UNCRC); belief if children should be allowed to work (with possibly harm to physical and mental health); should they be allowed to work if it prevents them from attending schooling?
Future prospects	Desires for the future; belief in success
Reflection on the interview	

Domains

- Work versus education
- Work versus family life

- Disadvantages in power relationships at work
- Involuntary nature of work
- Role conflict in the child worker

Psychosocial Indicators used in Programmes for Street Children in Brazil

A chapter in Myers'[214]book, *Protecting Working Children*, entitled "Generation and Observation of Evaluation Indicators of the Psychosocial Development of Participants in Programmes for Street Children in Brazil" presents indicators that were used in evaluating the impact of selected programmes on their child participants.

Domains	Indicators
Social skills	Democratic participation; exercise of rights and duties; solidarity with one's own class; constructive use of leadership skills; cooperation; consideration for others; resolving problems without violence; interpersonal relationships; political awareness; responsibility towards family; responsibility towards society; proper use of time; use of community services and information; appreciation of order
Career skills	Job seeking; persistence in the job; valuation of work; career improvement; initiative for work; diligence; responsibility on the job; technical competence; acquisition of earnings; efficient use of earnings; financial self-sufficiency; honesty at work (professionalism)
Individual growth	Self-esteem; self-confidence; ability for communication and self-expression; realistic aspirations; motivation for survival (will to live); artistic and cultural expression; acquisition of basic skills and knowledge; creativity; critical thinking; health improvement; valuation of health; motivation to study; effectiveness
Moral values	Spirituality; non-violence; humanitarian spirit; sense of justice; trust in others (faith, hope); condemning drugs; respect for sexuality; respect for other people's property; identification with positive models; appreciation of the programmes

Pakistan child labour studies

The Center for Working Conditions and the Environment (CIWCE) conducted a series of studies for the ILO of children manufacturing surgical instruments in Sialkot,[215] in coal mining in Noshera and Shangla,[216] scavenging in Lahore, Karachi, Quetta, Peshawar and Islamabad,[217] and deep sea fishing, sea food processing and ship breaking in Baluchistan province.[218] The studies included social, economic and health status of the children.

Domains	Indicators
Reported fear of the child	Police Contractor/Employer Drug peddlers Dogs Big boys

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[214] Myers, W.E. 1991
[215] Zaidi, H.H.; Afzal Beg, M.; Pervaiz, K.; Saddiqi, I.H.; Shah, G.H. (AKIDA Management Consultants) 2003.
[216] Zaidi, H.H. 2003.
[217] Khattak, S.G.; Bokhari, S.; Habib, K. (Sustainable Development Policy Institute) 2004.
[218] Hai, A.A.; Ali, S.; Ahmed, S.; Sadaqat, M.; Fatima, A.; Iqbal, F.; Ali, A.; Javed, S.; Anjum, S.Q.A. (Applied Economics Research Centre/University of Karachi) 2003.

Domains	Indicators
	Father/Mother/Brother
	Other (e.g. God, Snake, Uncle)
Abuse (physical/emotional) & being penalized at work	Yes/No
Frequency/intensity of abuse	Light/ Medium/ Heavy
Perception of children about teacher treatment	All teachers treat well/badly
	Some teachers treat well/badly
	Only one teacher treats well/badly
	Teacher sometimes treats me badly
Parents happy with their child's work	Yes/No
Parents are angry	Yes/No
Children are happy with their work	Yes/No
Children are angry	Yes/No
Children are angry about:	Never get angry
	People
	Family member(s)
	Fate/Luck
	Employer
	System
Availability of food	
Addictive behaviour	Cigarettes
	Drugs
Use of free time	Home
	Park
	Playground
	Mosque
Work environment	Cleanliness
	Lightning
	Ventilation
	Safety
Use of instruments	Safe / Unsafe
How does work affect children (according teacher)	Ability to concentrate
	Relation with other children or with the teacher
	Ability to memorize
	Ability to conduct practical work
	Behaviour in and outside of the class room
	Losing trust in other people
Behaviour in school (according to teacher)	In class
	Relationships with peers
	Academic performances
	Behaviour in play ground
	Relations with teachers and administration
Psychological hazards	Feeling depressed
	Lack of confidence
	Shyness
	Traumatized

Assessment of Hazardous child labour in 12 Occupational Sectors

In 2013, Saeed Awan and colleagues of the Centre for the Improvement of Conditions And Environment (CIWCE) conducted an assessment of hazards faced by working children in 12

occupational sectors[219]. This assessment also included measuring the psychosocial health outcomes, they are shown below.

Occupational sector	Psychosocial outcomes
Workshops at petrol pumps	• Children work closely together with employers who act as trainers. They receive more guidance, but it also limits their personal agency. • Less fear and hopelessness and helplessness compared to child workers of other sectors. • Overall, less psychosocially challenged than other groups.
Barber shop	• More somatic stress. • Overall, better psychosocial scores than other children working in other sectors, but worse than non-working children.
Carpet weaving sector	• Less hostile work environment as well as a better level of integration compared to other sectors. • Better psychosocial health than the children working in other sectors. • Higher level of somatic stress, which cannot be explained by high scores on other subscales such as stress, anxiety and depression.
Domestic work sectors	• Overall better psychosocial health than that of children working in other hazardous sectors, but lower than non-working children • Less comfortable with their social setting and relationships. • Child domestic workers experienced a sense of relative deprivation.
Furniture workshop	• Reported experiencing less fear, hopelessness, somatic stress and abuse. • However, furniture workers did report having more problems related to social integration. Possibly caused by the cultural practice of hiring children in a work setting where other male members of the family are already working (also in brick kilns)
Hotels and tourism	• Due to the long work hours, with different time schedules, the chances of being abused by employers, guests or colleagues as well as an unclear job description the job can be psychologically challenging. • Children and youth working in hotels and tourism were less satisfied with their relationships in the family and at work, less satisfied with their job training and they has more somatic complaints.
LPG filling sector	• Lower self-esteem, were less comfortable with their work relationships, and were less satisfied with their training and supervision. • Little opportunity to socialize in their workplace and are under the constant surveillance of their supervisors. • The physical hardships and hazards that child LPG workers are exposed to, can further deteriorate their psychological health. • Verbal and physical abuse of the child workers by their employers is also quite common in this sector. • Working in an environment that socially isolates them and engaged in an arduous and dangerous work. • Suffer more from symptoms of somatic stress (dizziness and tension in body).
Metal utensils	• The overall psychological health was found to be more stable. • Less time for leisurely activities and were less social adjusted. • Problems in social adjustment have emerged as a common problem among working children. Children who work full time for 8 hours or more everyday find little opportunity to go to school or socialize within their communities.
Mining and quarries	• Young mine workers had slightly higher self-esteem, and were more comfortable with their work relationships compared to the other sectors. Much more satisfied with their supervision and training than in other sectors.

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[219] Awan, S. et al. 2013.

Occupational sector	Psychosocial outcomes
	• Less socially integrated than the controls, however their score was still higher than that of respondents who worked in other sectors • Overall, children and young miners experienced less emotional problems, but more stress, somatic stress and abuse • Suffered more physical health problems, but their psychosocial health seems to be comparatively more stable. • Miners tend to have more social support within their communities and their workplace.
Road side seller	• Majority of their customers are adults, are often disrespectful and abusive. • Employers often keep them under their strict control and at times there is verbal or physical abuse. • More mentally stressed, more emotionally strained and less socially adjusted. • Children on average work between 7 to 9 hours every day. Their work schedule precludes them from attending school and leaves them little time to socialize.
Steel fabrication	• The psychosocial health was better than other child workers. Including self-esteem, stress, work relationships and supervision/training. • Experienced less somatic stress, fear and hopelessness. • Compared with nonworking children, child workers were less socially adjusted.
Street hawkers	• More socially isolated than the children who worked in other sectors. • Lower self-esteem, experienced more stress and were less satisfied with their work relationships. • Customers were often disrespectful and confrontational towards them. They were also physically intimidated by them. • Socially maladjusted and felt that they did not have enough social support within their families and communities. • Feelings of social isolation were quite common. • The work environment does not allow them to interact with adults and other children in a safe and exploitation free environment, which may be making them critical of their existing social relationships.

Child Work in Adis Ketema, Ethiopia: A Study in Mental Health

The dissertation: "Child Work in Adis Ketema, Ethiopia: A study in mental health" was undertaken by Dr. Fekadu (2008) who used the *Diagnostic Interview for Children and Adolescents (DICA)* to assess child workers' mental health*.*

Personal data	Age; ethnicity; place; reasons for moving; financial family status (compared to community).
Family context	Parents are still living, or not? are they together, or not? number of siblings; number of siblings and age; kind of jobs.
Schooling	Attendance to school; grade; reasons for leaving or not going to school; mode of school delivery (day or evening); employer-school relationship; accessibility and affordability school; attitude of peers towards school; parents' attitude.
Background	Age start working; types of work; if friends family or siblings are also currently working; if the child is the oldest
Present living situation	Living in with employer; time sleeping; time waking up; where do you sleep; quality sleeping place; number of meals a day; quantity and quality of food; living conditions and clothing; disruption from sleep; number of children employer.

Personal data	Hurt; sickness; accidents; fears and worries; main needs and worries; future prospects; kinship with employer; how often do you meet your parents; time when you visited for the last time your parents; kind of punishment and frequency of punishment; reasons for punishment; working under constrains; child domestic work under physically arduous or morally compromising activities
Physical risks	Lifting heavy weights; medical treatment; who is paying for medical treatment?; verbal or physical abuse by children or employer; perception of danger; threat and risk; self-perception; perception of self-compared to peers; do employers also rebuke/discipline their own children when they commit physical or verbal violence to you?
Emotional and Mental risks	Repetitive tasks; how do you feel about repetitiveness?; time stress work (does your employer pressure you to complete assigned tasks immediately?); critique from employer for the quality of your work; opportunities for learning and creativity; perception of status child domestic work; experiences of scapegoating or harassment by employer or children; physical violence; By whom is physical violence committed?; incentives provided by employer; punishment by employer by receiving insufficient food; respect received by employer; emotional assessment of household environment of employer (e.g. living in constant fear); worrying about the future; Been hurt badly; seriousness of physical infliction
Work environment	Freedom of movement; freedom of interaction with people outside the house; frequency of sports and recreational activities and with whom?; who is influencing your decision to continue working as a child domestic worker; what are the reasons for not stopping?; opportunities for training; awareness of bonded child work; number of years of working; numbers of breaks a day; enjoy work
Tasks	List all the tasks; what is good or bad about the work you are doing
Employment process	For who do you work (relatives, etc.)?; who arranged the work for you?; do you have a written contract; financial obligations; do you have an interest in the work you are doing?; with who do you share you worries?
Terms and conditions of work	Hours a day of work; payment of salary; breaks; opportunities for leisure time; self recreation; period of stay at job
Knowledge of child rights	Knowledge of the conventions; knowledge of organizations in the area; how can the lives of domestics be improved? what should be abolished?
Social and Psychological	Social rights; feeling of injustice and frustration; what do you consider as morally wrong?; working under stress; working under intimidation; opportunity to be active in religious activities; allowed to go to the church; perception of prestige of child domestic work, effects of verbal and physical violence
Causes of domestic labour	Who prompted you to do this work?; socio-economic motivations, different pathways to child domestic work
Dangerous or hazardous tasks at home	Lifting heavy materials; use of dangerous tools.
Right to leave work	Perception on the right to leave work
Child's future	Perception of future
Healthy child development	Time for leisure and play; encouraged by employer to have self initiative; affection of employers; belittled or praised and awarded by employer; receiving stimulation or creativity; given the opportunity to learn through exploration and discovery; allowed to be irresponsible.
Sexual harassment	Types; frequency; type and frequency of abuse in the house of your employer; effect of sexual harassment; person who commits the sexual harassment; feelings of insecurity

Child Domestic Work: A Rapid Assessment in Addis Ababa, Ethiopia[220]

The objective of this study[221] was to identify and characterize the working- and living conditions of child domestic workers in Addis Ababa using a rapid assessment method.

Domains	Indicators
Key informant or Rapid Assessment Questionnaire	
Biographical information	Sex; occupation; education; religion; type of work activities; type of abuses; awareness of child rights; opinion of child work
General questionnaire about child domestic workers mental conditions	
Demography	Number of family members; religion; ethnicity; parents are working or not working?; migrated to other areas or not?; status of the parents: married or divorced; household bread winner?; mental condition of the parents; brothers and/or sisters below 15 years
Education	Enrolled in schools, or not?; reason for leaving school; level of schooling; kind of schooling; when attended schooling (day or night?); level of schooling parents
Employment conditions	Reasons for working; main activity; previous work experience; reasons for leaving work; number of hours at work; age when starting work; benefits of work; when do you receive salary?; what do you do with salary?; able to buy a meal?; financial family responsibilities; ability to save money; problems paying for medicine and clothing.
Abuse	Physical abuse: being beaten, driven out of house, physical injury; emotional abuse: being blamed, being searched by people, being suspected, neglected or forgotten; denial: of food, hospitalization; sexual abuse: employer, family members, parents or guardians; relationship with employer; perception of oneself in current job in the future

Psychosocial Rapid Assessment

This chapter by Judith Ennew in the ILO publication, *Finding out about child labour … Quickly*[222] is designed to search for a few basic and general psychological characteristics. The aim is to examine gross differences between children who work and those that do not, rather than to test for subtle effects or to define a therapeutic programme. Ennew selected tests to be included in a rapid assessment that could be used as indicators of more than one kind of problem, had been extensively used cross-culturally, are relatively simple and can be administered by persons who are not trained psychologists. She advised that it is helpful to have a child psychologist involved, particularly to assist in the analysis of certain tests. For triangulation purposes the tests use three methods: psychometric, physiological, and social.

General information
Domains • Age • Sex • Family structure • Nutritional status • Accident/Illness record • School attendance record

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[220] Fekadu Wolde-Giorgis, D. 2008
[221] Kifle, A. 2002.
[222] ILO, 1994

• Work record	

Psychological Domains	Indicators
Intellectual	*Effects*: intellectual stunting; lack of communication skills *Possible causes*: unstimulating environment; lack of schooling; exposure to lead; repetitive tasks; isolation, lack of interaction
Emotional	*Effects*: stress and anxiety; helplessness *Possible causes*: excessive stimulation; powerless position
Other tools and methods recommended	
• Bender Gestalt Visual Motor Test (recommended for all children) • Kopitz-Draw A Person Test (recommended for all children) • WISC-R (recommended for a sub-group) • Verbal Fluency Test (sub-group) • Locus of control test (sub-group) • Sentence completion test (sub-group) • Salivary cortisol radioimmunoassay (sub-group) • Three wishes test (sub-group) • Semi-structured interviews • Observations	
Emotional and Mental Risk factors	
• Repetitiveness of tasks • Time stress • Quality stress (failures, mistakes) • Opportunities for learning, advancement • Opportunities for creativity • High/low prestige of industry or task • Scape-goating, harassment • Verbal abuse by employers, supervisors, fellow workers • Sexual abuse • Incentives to do well • Punishments for failure	

Note that some of these tests belong to a category of projective techniques.

Young Lives Study

Young Lives is a longitudinal study of childhood poverty,[223] involving 12,000 children in four countries over 15 years. It is led by a team in the Department of International Development at the University of Oxford in association with research and policy partners in four study countries: Ethiopia, India, Peru and Vietnam. It has used a number of methods, instruments and scales which are referred to elsewhere in the document. It is generating a wide range of reports, for the qualitative part of the study see: http://www.younglives.org.uk/publications/TN/young-lives-longitudinal-qualitative-research; the domains and indicators used at various times in the Young Lives Study are presented below.[224]

Domains	Indicators
Location information, identification numbers and data handlers	
School and activities	**Child's schooling:** Type of school; perceived way of risk on way to school; school absence and reasons; likes and dislikes **Child's time use:** Child's activities on previous day; paid/unpaid work; child's

Domains	Indicators
	achievements and development instruments: - Peabody Picture Vocabulary Test - Achievement test (Reading, Writing and Mathematics)
Child health	Perceived health; dietary intake; pubertal development status
Social network, social skills and social support	Cognitive social capital (feeling supported); structural social capital (connectedness, group membership); social skills at work and school (relationship with peers, ability to talk to others)
Feelings and attitudes	Children's attitudes towards education; life satisfaction; trust and perception of service quality; stigma and discrimination; feelings of self-efficacy; self-esteem and shame
Parents and household issues	Perceived support and discrimination; perceived ability to negotiate with parents
Perceptions of future, household wealth, and community	Child's aspirations for future; perceived household wealth
Agency and Self-efficacy	**Items:** If I try hard, I can improve my situation in life; other people in my family make all the decisions about how I spend my time; I like to make plans for my future studies and work; if I study hard at school I will be rewarded by a better job in future; I have no choice about the work I do – I must work; there are nine steps on this ladder. Suppose we say that the ninth step, at the very top represents the best possible life for you and the bottom represents the worst possible life for you: where on the ladder do you feel you personally stand at the present time?; do you think you will be able to move up the ladder in order to improve your situation in the next four years? how far do you think you will be able to move up the ladder? **Scale:** Griesel et al. (2004) in their analysis of the psychological outcomes of a children's participatory urban environment improvement project developed *a scale for the measurement of feelings of self-efficacy*.
Aspirations and Wishes	**Items:** What job would you most like to do in the future?; when you are about 30 years old, what job do you think you will be doing?
Pride and Shame	**Items:** I feel proud to show my friends or other visitors where I live; I am ashamed of my clothes; I feel proud of the job my […] does; I am often embarrassed because I do not have the right books, pencils and other equipment for school; I am proud of my achievements at school; I am embarrassed by/ashamed of the work I have to do; the job I do makes me feel proud; why do you feel proud?
Well-being Exercise	**Techniques:** - *Social map*: Armstrong et al (2004) found that developing a map of 'Who do I visit' gave relevant and specific information about children's social worlds in Sri Lanka. - *Body Maps* - *Interviews* - *Culturally appropriate surveys* Loughry et al. (2005) developed a scale for assessing Afghan children's psychosocial well-being based on insightful ethnographic work by de Berry (2003) which revealed three domains relevant to well-being for psychosocial well-being in Afghanistan: relationships, feelings, and positive coping in difficult circumstances.
Functioning & Time use	**Items:** During the last 12 months, have you missed more than one week of school at any one time? why? how many weeks school have you missed for this reason?; in which month did most of these absences (periods away from school) occur, if any?; which of the following activities did you do yesterday/on xxx day (last working/school day)?; who were you with when doing this activity?; which of the above activities did you spend most time doing yesterday/ on xxx day (last working day)?

Domains	Indicators
	Techniques: • *Drawings*: some researchers report asking children to draw pictures of what they do 'outside of school'[225] or more generally.[226] • *Daily diaries*: one way to collect information about children's daily lives is to ask them to keep a diary.[227] • *Recall*: time allocation data can be collected by asking for the routine of the previous day for 15-20 days for each household member including children.[228] • *Seasonal Calendars*: although some seasonal variations in school attendance will be revealed by answers to questions, other variations in work patterns and time use will not be highlighted. • *Guided* Tours: guided tours have been used with children as young as four in the UK in their work with four-year-olds.[229] • *Who Matters?* In this exercise, children make a drawing or chart with themselves at the centre and other important people in it.

The Young Lives study relates an assessment of the personality dimensions known as "the Big Five" [230] to three job performance criteria: job proficiency, training proficiency and personnel data. Results indicated that 'Conscientiousness' had consistent relations with all job performance criteria for all occupational groups, while 'Openness to Experience' was related to training proficiency.

Domains

- *Extraversion*: the degree to which one is active, assertive, talkative, and so forth.
- *Neuroticism*: tendency to experience negative emotional states.
- *Agreeableness*: whether one is generous, gentle, kind, etc.
- *Conscientiousness*: whether one is persistent, reliable, hard-working.
- *Openness to experience*: whether one is creative, imaginative, introspective, etc.

Young Lives examined the dimensions of pride, self-esteem and shame. The items used were based on the *Rosenberg Self-Esteem Scale (1965).*[231] They include:

- I feel proud to show my friends or other visitors where I live.
- I am ashamed of my clothes.
- I feel proud of the job done by the head of the household.
- I am often embarrassed, because I do not have the right books, pencils or other equipment for school.
- I am proud of my achievements at school.
- I am embarrassed by/ashamed of the work I have to do.
- I am ashamed of my shoes.
- I am worried that I don't have the correct uniform.
- The job I do makes me feel proud.

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[225] Sapkota & Sharma 1996
[226] Harpham et al. 2005
[227] Punch 1997
[228] Johnson (1995) collected
[229] Clark & Stratham, 2005
[230] McCrae, R.R.; Costa, P.T. 1987; Barrick, M.R.; Mount, M.K. 1991.
[231] Rosenberg, M. 1965; Blascovich, J.; Tomaka., J. 1993.

Young Lives also looked at 'trust' and 'sense of inclusion' as a way of understanding young people's networks of support. The indicators in these domains include:

Sense of inclusion	The other children in my class treat me with respect; pupils in my class never tease me at school; adults in my community treat me as well as they treat other children at my age
Trust	Most people in my neighbourhood are basically honest; most people in my neighbourhood can be trusted; I believe the government what is right for people like me; I feel safe when I go out of the house on my own

Two other domains examined by Young Lives are 'resilience' and 'self-concept.' Resilience describes the process of positive adaptation by an individual despite exposure to significant adversity. This implies both the exposure to risk and the achievement of positive adaptation. Resilience is not a useful construct concerning poverty research due to its complexity and multidimensional nature. As such, it is suggested that it would be of more analytical merit to retain focus on specific aspects of psychosocial functioning of children that impact on their development and outcomes.[232]

Domains

- *Adaptability* – e.g. using tools interactively.
- *Autonomy* – e.g. acting autonomously and reflectively.
- *Social skills* – e.g. joining and functioning in socially heterogeneous groups.

Self-concept is an individual's perceptions of the self which is formed in conjunction the environment and interactions with others.[233] *Academic self-concept* is thought to be a sub-component of general self-concept and can be defined as a student's self-perception of academic ability and is developed through an individual's interactions and experiences with their environment and others such as peers, teachers and parents.[234],[235]

Marsh et al. of the Oxford SELF Research Group developed a series of self-concept instruments designed to measure self-concept of pre-adolescents (SDQI), early to middle adolescents (SDQII) and late adolescents and young adults (SDQIII).

Title	SDQ II (For early to middle adolescents)
Method	Self-Report Method.
What is measured?	In particular, the SDQII is designed to measure: four non-academic areas (Physical Ability, Physical Appearance, Peer Relations, and Parents Relations). Three academic areas (Reading, Mathematics, and School in general), and a global perception of self.

Domains	Items
Mathematics	Mathematics is one of my best subjects; I often need help in mathematics; I look forward to mathematics class; I have trouble understanding anything with mathematics in it; I enjoy studying for mathematics; I do badly in tests of mathematics; I am good at mathematics; I

[232] Boyden, J.; Cooper. E. 2008
[233] Marsh, 1990
[234] Marsh, Byrne & Shavelson, 1988
[235] Liu & Wang, 2005

Domains	Items
	never want to take another mathematics course; I have always done well in mathematics; I hate mathematics
General	Overall, I have a lot to be proud of; overall, I am no good; most things I do, I do well; nothing I do ever seems to turn out right; overall, most things I do turn out well; I don't have much to be proud of; I can do things as well as most people; I feel that my life if not very useful; If I really try I can do almost anything I want to do; overall, I am a failure.
Verbal	I am hopeless in English classes; I look forward to English classes; I do badly on test that need a lot of reading ability; work in English classes is easy for me; I am not very good at reading; English is one of my best subjects; I hate reading; I get good marks in English; I have trouble expressing myself when I try to write something.
School	People come to me for help in most school subjects; I am too stupid at school to get into a good university; If I work really hard I could be one of the best students in my school year; I get bad marks in most school subjects; I learn things quickly in most school subjects; I am stupid at most school subjects; I have trouble with most school subjects; I am good at most school subjects; most school subjects are just too hard for me; I enjoy spending time with my friends of the same sex
Parents	My parents are usually unhappy or disappointed with what I do; I get along well with my parents; it is difficult for me to talk to my parents; my parents treat me fairly; I have lots of arguments with my parents; my parents understand me; I do not like my parents very much; my parents really love me a lot
Peer	I am usually relaxed; I worry more than I need to; I don't get upset very easily; I am often depressed and down in the dumps; other people get more upset about things than I do; I am a nervous person; I often feel confused and mixed up; I get upset easily; I am a calm person; I worry about a lot of things.
Scoring	Items are scored on a six point Likert scale as follows: 1. False. Not like me at all. 2. Mostly false. 3. More false than true. 4. More true than false. 5. Mostly true. 6. True. This statement describes me well.
Reliability	The SDQII is considered to be the most validated self-concept measure available for use with adolescents.[236] Following a similarly planned program of research as that of its predecessor over the past 10 years or so, the SDQII has undergone extensive testing to establish its psychometric soundness as a measure of self-concept.
Notes	The instruments are widely used and freely distributed however the SELF Research Group asks that those who use the instruments agree to the Terms and Conditions, that the instruments are correctly referenced and that any conditions of use that apply to that instrument are adhered to.

Title	SDQ III (For late adolescents and young adults, 16-25 years of age)
Method	Self-Report Method.
What is measured?	More specifically, the SDQIII is designed to measure self-concepts related to 8 non-academic areas (Physical Ability, Physical Appearance, Peer Relations – Same Sex, Peer Relations – Opposite Sex, Parent Relations, Emotional Stability, Honesty/Trustworthiness, and Spiritual Values/Religion) ■ Four academic areas (Verbal, Mathematics, Problem Solving, and General – Academic) ■ And a single global perception of self (General – Self). ■ (The highlighted subscales are included below).

Domains	Items
Maths	I find many mathematical problems interesting and challenging; I have hesitated to take courses that involve mathematics; I have generally done better in mathematics course than in other course; mathematics makes me feel inadequate; I am quite good at mathematics; I have trouble understanding anything that is based upon mathematics; I

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[236] Byrne, 1996

Domains	Items
	have always done well in mathematics classes; I never do well on tests that require mathematical reasoning; at school, my friends always came to me for help in mathematics; I have never been very excited about mathematics.
Verbal	I have trouble expressing myself when trying to write something; I can write effectively; I have a poor vocabulary; I am an avid reader; I do not do well on tests that require a lot of verbal reasoning ability; relative to most people my verbal skills are quite good; I often have to read things several times before I understand them; I am good at expressing myself; in school I have more trouble learning to read than most other students; I have good reading comprehension.
General academic	I enjoy doing work for most academic subjects; I have studying for many academic subjects; I like most academic subjects; I have trouble with most academic subjects; I am good at most academic subjects; I am not particularly interested in most academic subjects; I learn quickly in most academic subjects; I hate most academic subjects; I get good marks in most academic subjects; I could never achieve academic honours, even if I work harder.
Problem solving	I am never able to think up answers to problems that haven't already been figured out; I am good at combining ideas in ways that others have not tried; I wish I had more imagination and originality; I enjoy working out new ways of solving problems; I am not much good at problem solving; I have a lot of intellectual curiosity; I am not very original in my ideas thoughts and actions; I am an imaginative person; I would have no interest in being an inventor; I can often see better ways of doing routine tasks.
Parent relations	I hardly ever saw things the same way as my parents when I was growing up; I would like to bring up children of my own (if I have any) like my parents raised me; I still have many unresolved conflicts with my parents; my parents have usually been unhappy or disappointed with what I do and have done; my values are similar to those of my parents; my parents have never had much respect for me; my parents treated me fairly when I was young; It has often been difficult for me to talk to my parents; my parents understand me; I like my parents.
Emotional stability	I am usually pretty calm and relaxed; I worry a lot; I am happy most of the time; I am anxious much of the time; I hardly ever feel depressed; I tend to be highly-strung, tense, and restless; I do not spend a lot of time worrying about things; I am often depressed; I am inclined toward being an optimist; I tend to be a very nervous person.
General esteem	Overall, I have a lot of respect for myself; overall, I lack self-confidence; overall, I am pretty accepting of myself; overall, I don't have much respect for myself; overall, I have a lot of self-confidence; overall, I have a very good self-concept; overall, nothing that I do is very important; overall, I have pretty positive feelings about myself; overall, I have a very poor self-concept; overall, I have pretty negative feelings about myself; overall, I do lots of things that are important; overall, I am not very accepting of myself.
Scoring	Items are scored on a eight point likert scale as follows: 1. Definitely false. 2. False. 3. Mostly false. 4. More false than true. 5. More true than false. 6. Mostly true. 7. True. 8. Definitely True.
Reliability	The SDQIII is currently the most extensively validated self-concept measure available for use with adults. Following the same research strategy as that related to the other SDQ scales, this past decade has seen the SDQIII undergo rigorous extensive testing to establish its psychometric soundness as a measure of self-concept.
Notes	The instruments are widely used and freely distributed however the SELF Research Group asks that those who use the instruments agree to the Terms and Conditions, that the instruments are correctly referenced and that any conditions of use that apply to that instrument are adhered to.

The psychosocial impact of child domestic work: a study from India and the Philippines

The aim of this study by Hesketh, Gamlin, Ong, and Camacho (2012)[237] was to explore the effects of domestic employment on the well-being of child domestic workers (CDWs) in India and the Philippines.

A questionnaire was administered to 700 Child Domestic Workers (CDW's) in India and the Philippines and 700 school-attending controls. This questionnaire developed for this study was built on previously conducted qualitative research and analyses[238] and Woodhead's vulnerability and protective factors[239]

Socio-demographic characteristics of Child Domestic Workers and controls

- Gender
- Age
- Migration status
- Home situation

Comment: Questions concerning migration status must be included when studying any children who might be itinerant, move regularly or periodically, have been trafficked, forced to move due to a crisis, etc. Movement can have a profound effect on children's psychological well-being and the circumstances in which it occurs can have either a protective or compounding effect. Migration status queries should include frequency of movement, movement with family or alone, effect of movement on schooling, and the degree of choice involved.

Living and working conditions of child domestic workers

- Age started work*   (younger starting age is usually correlated with higher psychological vulnerability)
- Reason for going into child domestic work
- Who do you live with?* (living with employer is usually correlated with higher psychological vulnerability)
- Day off* (no weekly break is correlated with higher psychological vulnerability)
- Number of hours of work/day (>10 hrs is usually correlated with higher psychological vulnerability)
- Paid for work done
- Currently attending school (irregular/no school attendance is correlated with higher psychological risk)
- What does your employer do if you do something wrong? (verbal/physical violence is correlated with higher psychological vulnerability)

Comment: A critical question for any child who, as with domestic workers, might live in the workplace or apart from their parents, is to ascertain with whom the child actually lives – e.g. a

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[237] Hesketh, T.M.; Gamlin, J.; Ong, M.; Camacho, A.Z. 2012.
[238] Blagbrough J. 2008; Black M. 2005; Woodhead M. 1999; Brewer, E.S. 2003.
[239] Woodhead, M. 2004..

"guardian", relative, or employer. Such questions can also be subtle indicators of trafficking or other forced labour status.

Attitudes to work and social support

- Do you like working?
- Are you proud of your work?
- Self-reported health* (certain symptoms may indicate psychological impact)
- Able to visit family
- Friends with other child domestic workers* (isolation from peers is correlated with higher psychological vulnerability)
- Feels supported by adults* (lack of protective adult presence is correlated with higher psychological vulnerability)
- Attends community centre* (opportunity for development of social skills may be a protective factor)

The following table summarizes the domains and some of the indicators for these domains that were used in this study.

Domains	Indicators
Social Support	Being able to rely on friends/parents; having the opportunity to get social support
Positive self-evaluation	Feeling proud of oneself; being happy with oneself
Locus of control & outlook for the future	Feeling of being in charge of own life; feeling that other people make decisions; I hope that I can change my life for the better
Emotional burden of work	I have trouble concentrating; my mind gets tired of everything I need to think of; I feel a lot of stress
Relevance of work	The activities I spend most of my time doing are important to me
Introverted behaviour	I am shy; I hardly ever start a conversation; there are things about myself I hide from others
Positive coping strategies	I know how to relax and enjoy myself, I laugh easily with friends

Some conclusions from the study may help to clarify or emphasize some of the points above:

- The study found that *circumstances and conditions* of child domestic workers differ between countries. Domestic work by children in India is more a survival strategy for the family, whereas in the Philippines it is more considered as a chance to earn money, to attend better schools or to move up the social ladder.
- Certain factors appear to have a protective effect. These are education, social networks, and employer relationships, explained in more detail as follows.
    - Education. In the study, children who do not attend school are three times more likely to be psychosocially vulnerable. However, while work often forces a child to leave school, it can also provide funds or other access that enable her/him to go to school. Other positive factors associated with school are that it makes children visible, provides access to friendship, social activities and supportive adults, increases opportunities and gives children hope for the future.
    - Social networks. *Social capital* is a strong protective factor. In this context, it refers to relationships with other child domestic workers and concerned adults, as well as participation in community groups.

- o <u>Adult relationships</u>. A positive relationship with the employer, as well as support from other adults, was demonstrated to be important in situations such as the Philippines where child domestic workers are migrants or where their families are distant, non-existent, or out of reach.

- An association was found between *poor or fair self-reported health and poor psychosocial well-being*. This may be because poor physical health has an effect on psychological well-being, or because a poor psychological state is reflected in physical symptoms. Many complained of *headache* or *abdominal pain* which are classic psycho-somatic symptoms.

- Younger children had lower psychosocial scores in India but not in the Philippines. It has generally been assumed that younger children suffer more from the adverse effects of all types of work due to their immaturity and lack of experience. But where conditions are good and children can attend school, maybe this is not the case.

- Living-in was associated with poorer psychosocial outcomes in the Philippines, but not in India. But in some cases living conditions and health are better in the employer's home than in the child's own home, sometimes simply because in a city food and health facilities are more easily accessed.

This study indicates that it may not necessarily be the <u>type</u> of work that is harmful, but rather the circumstances and conditions in which the work takes place. Therefore, these factors need to be taken into consideration in study design.

Child Abuse and Emotional Problems in Child Labour: the case of Ethiopia

This study of child workers is noteworthy because of its particularly detailed psychosocial component. It assessed the nature of child abuse and emotional problems among child workers in domestic, formal and informal establishments and on the streets, with the intention of using this information for sensitizing the public and policy makers of the need to eliminate hazardous forms of child work (for further references see Alem, A., et al. (2002)[240] (2006).[241]

The specific objectives of the study were:

1. To measure the nature and magnitude of *child abuse and emotional problems* among child workers.
2. To assess *physical* and *nutritional status* of child workers.
3. To *counsel and treat identified cases* of emotional problems.
4. To *inform* psychiatrists, counsellors, NGOs, the public and policy makers about the basic frame of reference on the extent as well as areas of prevention and intervention on emotional problems among child workers.

This was a cross-sectional survey of child laborers and non-child labourers, ages 8-15 years, working as domestic workers, child prostitutes, weaving, street work and work in establishments. The minimum age was set at eight years in light of children's capacity to read the questionnaires. The study was conducted in four major cities: Addis Ababa, Nazareth, Awassa and Bahirdar.

Two methods of sampling were used: random sampling and purposive sampling. For the purposive sampling method, a preliminary survey was conducted to come up with a list of industries in the

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[240] Alem, A.; Zergaw, A. 2002

[241] Alem, A.A.; Zergaw, A.; Kebede, D.; Araya, M.; Desta, M.; Muche, T.; Chali D.; Medhin, G. 2006.

areas. Also information from administrative offices was used. The first stage included general screening surveys with sections on socio-demographic variables, education, work, abuse related to work, nutritional status, physical and mental health problems. To screen for mental health problems, the *Reporting Questionnaire for Children (RQC)*[242] was used. Those who screened positive in this interview were interviewed again for definitive diagnosis in the second stage using the *Diagnostic Interview for Children and Adolescents (DICA)*,[243] a survey developed for the detection of childhood behavioural and mental disorders. DICA was used to identify emotional problems: mood, anxiety, elimination and somatisation disorders. The third survey includes physical and nutritional aspects. It contains sections on illness and injury history, physical assessment and dietary history.

This study contains a large number of variables. These are listed below by category.

Socio-demographic characteristics of the children

Sex, Age, Ethnicity, Religion, Educational status, Family size, Siblings <15 years, Brought up by (parents, relatives, non-relatives, others)

Socio-demographic characteristics of the parents

Family head, Monthly income, Working parent, Mother's level of education, Parents live together, Reason for not living together, Permanent resident of the area, History of mental illness of the parent

Substance use by child workers

Smoking cigarettes, Chewing chat, Smoking cannabis, shisha, Alcohol intake last month

Profile of child worker

Age at onset of work, Work benefit, Use of earned money, Fear of job insecurity, Relation with employer, Has family responsibility, Working for family, Problem in family if the child stops working,

Types of employment

Self-employed, Permanently employed, Temporarily employed, Seasonal work, Others

Working conditions of child workers

Work in dangerous environment, Operating dangerous machineries, Work exposes for psychological/sexual abuse, Work for long hours of the day, Amount and frequency of payment

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[242] Giel, R. ; De Arango, M.V. ; Climent, C.E. ; Harding, T.W. ; Ibrahim, H.H. ; Ladrido-ignacio, L. ; Murthy, R.S. ; Salazar, M.C. ; Wigg, N.N. ; Younis, YO. 1981.
[243] Herjanic, B.; Reich, W. 1982.

Health impacts

Work related illness or injury; temporarily did not work due to illness or injury; received medical care for illness or injury; perception of work to expose to illness/injury

**Reported physical and nutritional problems**

1. Regarding physical health status of the study population in the past 14 days during the survey, *headache, frequent colds, fever, dizziness, abdominal pain, weight loss, and breathing difficulties* were the more frequently reported problems by the child workers.
2. The child workers were also experiencing nutritional problems. The prevalence of *stunting (short for age) or chronic malnutrition* was 8.72 %; and in the assessment of acute nutritional problems in the child workers 3.97 % of them was found to be acutely malnourished.
3. *Weavers and domestic child workers* had more problems of fever, headache, frequent colds, neck problem, breathing difficulty and abdominal pain than the other groups of child workers.
4. The prevalence of mental health disorders is lower for the group of child workers than for non-workers. Possible explanations for this are the 'healthy worker effect' or perhaps selection bias.

Forms of abuse experienced by child workers in the formal and informal sectors

- Being insulted (35%), Physical abuse such as being beaten (9.2%)
- Sustaining injury were reported (8.7%)
- Neglect (7.9%)
- Being made a scapegoat (11.5%)
- Intimidation (21.8%)
- Body searched (9.5%)
- Being suspected (8.8%)
- Being belittled and insulted (14.7%)
- Denied food (3.0%)
- Denied medical care (7.8%)

The RQC interview screened *8.5 % (n=170) of the children* as probable cases of mental and behavioural disorders.

Figure: prevalence of childhood behavioural and emotional problems among child workers

Type of behavioural and emotional problems
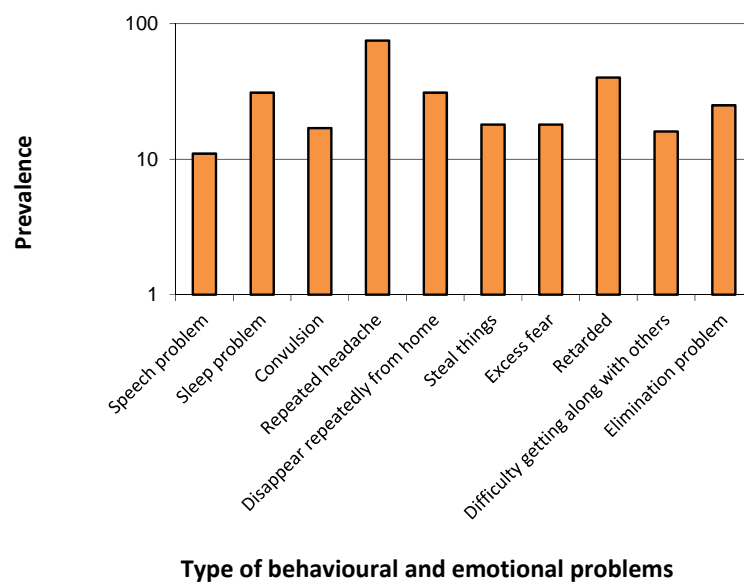
Figure: Occurrence of mental health problems among the target groups

Target groups
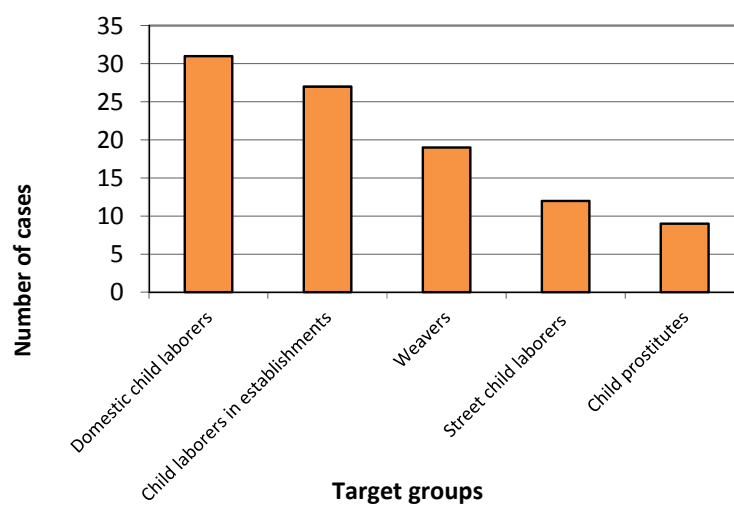
Hazardous Child Labour: Lead and Neurocognitive Development[244]

Lisa and Parker conducted a study on the effects of lead on the neurocognitive development of child workers. Lead was chosen because it has a direct negative link with intelligence and because, being well-studied in adults, it is possible to make direct comparisons with child workers. Intelligence levels of the child workers were measured here with the *Wechsler Intelligence Scale for Children* that consists of several components which are described below.

WISC: Wechsler Intelligence Scale for Children IV

The Wechsler Intelligence Scale for Children (WISC), was originally developed by Dr. David Wechsler in 1949[245]. Currently, after consecutive revisions, the fourth version of the WISC is in use[2]. The WISC is an individually administered intelligence test for children between the ages of 6 and 16 inclusive that can be completed without reading or writing. The WISC takes 65–80 minutes to administer and generates an IQ score which represents a child's general cognitive ability. The test includes the following subtests.

Verbal Comprehension index (VCI)

- *Vocabulary* - examinee is asked to define a provided word.
- *Similarities* - asking how two words are alike/similar.
- *Comprehension* - questions about social situations or common concepts.
- *Information* (supplemental) - general knowledge questions.
- *Word reasoning* (supplemental) - a task involving clues that lead to a specific word, each clue adds more information about the object/word/concept.

Perceptual Reasoning Index (PRI)

- *Block Design* - children put together red-and-white blocks in a pattern according to a displayed model. This is timed, and some of the more difficult puzzles award bonuses for speed.
- *Picture Concepts* - children are provided with a series of pictures presented in rows (either two or three rows) and asked to determine which pictures go together, one from each row.
- *Matrix Reasoning* - children are shown an array of pictures with one missing square, and select the picture that fits the array from five options.
- *Picture Completion* (supplemental) - children are shown artwork of common objects with a missing part, and asked to identify the missing part by pointing and/or naming.

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[244] Lisa, S.R.; Parker, D.L. 2005.
[245] Wechsler, D. 1949, Wechsler, D. 2003.

Processing Speed Index (PSI)

- *Digit Span* - children are orally given sequences of numbers and asked to repeat them, either as heard and in reverse order.
- *Letter-Number Sequencing* - children are provided a series of numbers and letters and asked to provide them back to the examiner in a predetermined order.
- *Arithmetic* (supplemental) - orally administered arithmetic questions. Timed.

Working Memory Index (WMI)

- *Coding* - children under 8 mark rows of shapes with different lines according to a code, children over 8 transcribe a digit-symbol code. The task is time-limited with bonuses for speed.
- *Symbol Search* - children are given rows of symbols and target symbols, and asked to mark whether or not the target symbols appear in each row.
- *Cancellation* (supplemental) - children scan random and structured arrangements of pictures and marks specific target pictures within a limited amount of time.

The Effects of Solvent Exposure and Motor Dexterity in Working Children

This excellent study undertaken in Lebanon[246] concerns intellectual and psychological changes related to physical workplace hazards. It used the following tests:

Non-computerized tests (test-battery)

- Motor dexterity
- Memory tests
- Mood test
- Benton Visual Retention (BVR) test[247]
- Symbol Digit Modalities Test[248]
- Santa Ana Dexterity Test[249]
- Reaction speed for the choice reaction time (Simple reaction time " Terry 84")[5,6,250]
- Dual task tracking tests[251]
- Neuro-behavioural Core Test Battery (NCTB)[252]
- Swedish Q16 Neurotoxic questionnaire[253]

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[246] Saddick B, Williamson A, Nuwayhid I, Black 2005.
[247] Benton Sivan, A. 1992.
[248] Smith, A. 1982
[249] Hanninen H.; Lindstrom K. 1979.
[250] McMorris, T.; Tomporowski, P.D.; Audifren, M. 2009.
[251] Wetherell, A. 1996.
[252] World Health Organization 1986, and Anger, W.K. 2003.
[253] Lundberg, I. et al. 1997.

Profile of Mood States (POMS)[254]

This is a non-verbal analogue profile of mood test used to determine the mood of the child. This test has been previously used on children to assess mood states. Cartoon pictures of faces portraying various mood states (happy, tired, afraid, angry, energetic, sad, confused, and tense) were presented with a nonverbal response scale consisting of a horizontal 10 centimetre (cm) line between the neutral face and the one portraying a mood state.

Manual dexterity (grooved pegboard)[255]

In this test, the child was presented with small pegs with grooves on one side and a board with holes. The child was asked to fill the holes in the board with the pegs as quickly as possible using only one hand to pick up, rotate, and fill the holes in a structured manner (left to right or right to left, depending on the hand used).

Short-term memory and attention digit span (from the WISC)[256]

In this test, a series of digit spans of increasing length starting from a combination of two numbers between one and nine were presented to the children verbally in Arabic.

Draw a Person (DAP) test[257]

The DAP test was used in this study because it is a nonverbal, nonintrusive, and easy to administer estimate of intelligence with inherent appeal to most children.

Pesticide Exposure of children working on Mexican tobacco plantations[258]

This study is important in that is using an objective physical measure to document psychological effects. Due to workplace exposures to organophosphorous and carbamic pesticides. These substances are known to depress levels of acetyl cholinesterase (AChE) in blood and were measured by taking blood samples of the children.

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[254] McNair, D.M.; Lorr, M.; Droppleman, L.F. 1971, 1981, 1992, and Heuchter, J.P.; McNair, D.M. 2012

[255] Roy, E. A.; Square, P. A. 1994.

[256] Wechsler, D. 1949, and Wechsler, D. 2003.

[257] Goodenough, F. 1926, Harris, D. B. 1963, and Ter Laack, J.; de Goede, M.; Aleva, A. 2005.

[258] Gamlin, J.; Diaz Romo, P.; Hesketh, T. 2007

Conclusion

This review is intended to demonstrate the ways in which the *Instrument for the Psychosocial Assessment of Child Workers (IPAC)* addresses those domains which are critical to child workers' psychosocial health as determined from published research, conceptual analyses and recommendations of experts in the fields of child development, psychology and occupational safety and health.

These domains can be summarized as follows:

Measures of **impact** of work on a respondent's psychological functioning. Indicators for these are found primarily in the domains of: "Self-Esteem," "Stress," "Personal Agency," "Emotional Factors," "Anxiety and Chronic Fear," and "Hopelessness and Helplessness" which seek indications of depression, hostility, and physical symptoms.

Measures of **hazard** and **risk** to a respondent's psychological functioning. Indicators for these are found in the domains of "Abuse and Maltreatment (emotional, physical, sexual abuse as well as neglect).

Indicators of **protective factors** are found in domains of "Relationships" and "Social factors" which measure a child's social connections and support system at different social ecological levels (family, community and peers), in the domain "Leisure", and at work in the domain "Supervision and training."

The IPAC has sought to incorporate the most significant domains while at the same time maintaining a relatively short instrument. The characteristics that make the instrument unique are that it is a multi-dimensional and balanced tool which takes into consideration the hazards and protective factors, as well as the negative and positive impacts of child work.

Following professor Martin Woodhead's quote from his seminal UCW work mentioned at the beginning of this paper, the IPAC has been developed for child workers who now have themselves the opportunity to weigh-up the 'costs' and 'benefits' of their work. We feel that we have in this way fully recognized the centrality of children's own account of the hazards, protective factors and impacts that has led to a final model.

We sincerely hope that the IPAC will open doors for researchers, policy makers and others directly involved with the wellbeing of child workers, and that it will be used to obtain an accurate picture of their psychosocial health leading to new ways in policy development to better protect the wellbeing of working children.

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Annex: IPAC questions

Questions for survey use

Stress

Do you get bored at work doing the same thing for many hours in a row?
Do you feel under pressure to work faster and harder?

Self-esteem

Do you feel like you have the skills needed to do your job well?
Do you think others appreciate the work you do?

Protection

Do people at work teach you what to do and how to do it?
Do you feel that people watch over you to make sure you don't get hurt?

Questions for control group

18. Do you have lots of energy?				
19. Do you generally feel pretty confident?				
20. Do you have any difficulty sleeping?				
21. Do you have trouble concentrating?				
22. Do you feel restless and cannot stay still very long?				
23. Do you feel sad and like crying?				
24. Do you get into fights or quarrels easily?				
25. Do you feel lonely?				
26. Do you get very angry and often lose your temper?				
27. Do you have little appetite or interest in food?				
28. Do you find that you forget things?				
29. Do you feel tension in your body?				
30. Do you feel dizzy?				
31. Do you feel afraid or nervous?				
32. Do you worry and think a lot?				
33. Do you think a lot about bad things that have happened to you in the past?				
34. Do you think your life will get better some day?				
35. Do you think your life is worse than that of other children?				
36. Do you think life isn't worth living?				
37. Do you feel supported and loved by your family?				
38. Is there conflict in your family?				
39. Do you feel accepted by the other families around here?				
40. Do you have one or more good friends that support you?				
41. Do people reject or tease you or call you names?				
42. Do you play games or sports with friends?				
43. Do you feel very different from other children your age?				

Additional questions recommended for inclusion in IPAC

Did you choose to work? Would you still work if there was no necessity?

Does your work affect your relationships with your family? With your friends? With others in the community?

Do you get beaten at home? At school?

Qualitative questions

The following questions may help in establishing the cultural context of the respondent's activities or in enriching/ interpreting the answers:

What benefits do you get from working?

What would you do if you did not work?

What do you want to be/do when you are grown up?