Validity and consistency analysis of a social transformation scale for the impact evaluation of the ViraVida program

Análise de validade e consistência de uma escala de transformação social para a avaliação de impacto do programa ViraVida

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Abstract

According to estimates by the United Nations Children’s Fund (UNICEF), about one million children worldwide are directly affected by sexual violence and nearly a third of all cases occur in Brazil. The Program ViraVida acts to reduce the problem in the country, rescuing teenagers and youngsters in this situation, providing psychological, educational, and vocational assistance, including support for monitoring the placement and labor market. In this context, the main goal of the study is to analyze the validity and consistency of the Social Transformation Scale of the ViraVida Program. The study represents the second stage of the impact evaluation of the Program to measure possible impacts to strengthen employability, autonomy, self-esteem, community and family ties of young people from 16 to 24 years in situation of sexual exploitation. The methodology is based on the Factor Analysis procedures, including a verification of internal consistency of the full scale and their specific domains. Both proved to be consistent with Cronbach’s Alpha greater than 0.7. The results provide security for the performance of the later stage due to the ViraVida evaluation: evaluative research on adolescents and youngsters in the 11 states and 14 cities where ViraVida is ongoing.

Keywords: Impact evaluation. Factor analysis. ViraVida program.

Resumo

Segundo estimativas do Fundo das Nações Unidas para a Infância (Unicef), cerca de um milhão de crianças em todo o mundo são diretamente afetadas pela violência sexual, sendo que praticamente um terço do total de casos ocorrem no Brasil. O Projeto ViraVida atua para reduzir o problema no país, resgatando adolescentes e jovens nesta situação, proporcionando atendimento psicológico, educacional e profissionalizante, incluindo inserção e acompanhamento dos mesmos no mercado de trabalho. Neste contexto, o objetivo deste estudo é realizar uma análise de validade e consistência da Escala de Transformação Social do Projeto ViraVida. É a segunda etapa da avaliação de impacto do Projeto para a verificação de possíveis impactos para o fortalecimento da autonomia, direitos sociais e cidadania de adolescentes e jovens de 16 a 24 anos em situação de exploração sexual. A metodologia foi fundamentada nos procedimentos da Análise Fatorial, incluindo a verificação da consistência interna da Escala completa e seus Domínios específicos. Ambos se mostraram consistentes, com Alpha de Cronbach maior que 0,7. Os resultados fornecem segurança para a realização da etapa posterior prevista para a avaliação do ViraVida: pesquisa avaliativa junto aos adolescentes e jovens nos 11 Estados e 14 cidades onde ViraVida está em curso.


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Introduction

As stated in the Brazilian Plan to Combat Sexual Violence against Children and Youth (BRASIL, 2002), "sexual violence against children and adolescents is a complex phenomenon, settled in a historical and social context of endemic violence and deep cultural roots. It was only in the 90s, with the approval of the Children and Adolescents Brazilian Statute, this segment passed to be legally considered subjects of rights, and not more unable population, subject to guardianship, of obedience and submission”.

Therefore, the validity and consistency analysis of the Social Transformation Scale of the ViraVida Program had an important role to contributing for the impact evaluation of the program. As a result, the impact evaluation will provide important insights into minimizing this problem in Brazil and strengthening projects and public policies targeted at adolescents and young people suffering from sexual exploitation.

Sexual exploitation is referred as a condition of social violence “for commercial purposes and an intermediary agent who profits from the sale of sex with boys and girls" (AGÊNCIA DE NOTÍCIAS DOS DIREITOS DA INFÂNCIA, 2008). This definition was promoted at the World Congress Against Commercial Sexual Exploitation of Children held in Stockholm in 1996. Furthermore, sexual exploitation can be subdivided into four categories: sex trafficking, commercial sex, sex tourism and pornography.

Even though sexual exploitation is also considered a serious criminal offense in the Brazilian Penal Code, it remains a problem that affects thousands of children, adolescents and young people in Brazil. Experts also alert that the problem is aggravated by conditions of poverty, gender and skin color. Most of exploited boys and girls are poor, black or mulatto girls (GADELHA, 2011).

Finally, there is a lack of clear indicators on the subject. "Those (indicators) who are available are projections or approaches […]. Available data on sexual crimes against children and adolescents in Brazil […] only contribute to mitigate this gap." (BRASIL, 2006, p. 19).

The ViraVida Program, conducted by the National Council of the Brazilian Industry Social Services (CONSESI) acts to raise self-esteem and education for teenagers and youngsters in situations of sexual exploitation, through a process based on socio-educational and vocational courses (http://www.viravida.org.br/projeto; accessed August 22, 2013). The full educational methodology was elaborated aligning profile and expectations of youngsters and market demands. The courses include the integration of vocational training, basic education, notions of self-management, and psychosocial care.

The goal of this study was to analyze the validity and consistency of the Social Transformation Scale of the Program, to enable the realization of its evaluative research and to investigate possible impacts of the Program. “A KAP Study measures the Knowledge, Attitude and Practice of a community (or population)” (KALIYAPERUMAL, 2004).

The Exploratory Factor Analysis showed that the internal consistency of the full scale reaches Cronbach's Alpha 0.8534, performed with STATA 8.0. All the final three domains of the Scale are

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4 KAP (Knowledge, Attitude and Practice) studies are highly focused evaluations that measure changes in human knowledge, attitudes and practices in response to a specific intervention, usually outreach, demonstration or education. Shah et al. (2011). Knowledge, attitude and practice (KAP) survey regarding the safe use of medicines in rural area of Gujarat.
consistent: 1) World of Work (0,732), 2) Family and community ties (0,780), and 3) Self-esteem and Self-confidence (0,740). “Cronbach’s alpha is a popular method to measure reliability, e.g. in quantifying the reliability of a score to summarize the information of several items in questionnaire” (CHRISTMANN; VAN AELST, 2006).

The methodological procedures followed four distinct stages. The first version of the Social Transformation Scale was made, based on the specific literature review. At this stage, more than 100 scientific pieces were read, including books, articles, abstracts, among others, to form the first version of the Scale. In the second stage, a data collection was performed pre-testing a questionnaire derived from the first version of the scale, in three cities, with control and intervention groups. In the third phase, the factor analysis was performed and the Cronbach’s Alpha coefficients were calculated with the database of the pre-testing. In the fourth and final phase, the results of the statistical tests were validated by the Vira Vida technical staff, to reach a final Scale Transformation, and to enable the data collection final evaluation. In summary, the methodological procedures followed the three first recommended steps by World Health Organization (2008) for a KAP survey: 1) define the survey objective, 2) develop the survey protocol, and 3) design the survey questionnaire. The other three refers to implement the survey, analyzing and using the data.

This study was authorized by the National Council of the Brazilian Industry Social Services (CONSESI) and it is part of a Research Protocol fully approved in December 2011 (Registry n° CAAE - 0370/11, P.I.EX code) by an Ethics Committee (Uniceub University) registered on National Ethics Research System (SISNEP), and following the Resolution n° 196 - which regulates research with people in Brazil, and the Federal Council of Psychology (Resolution n° 016/2000), in particular its specific recommendations that address the research with vulnerable populations. In this case, respondents 16-17 years who may have suffered or been subjected to the condition of sexual abuse or exploitation.

The main objective of this study was to conduct the analysis of validity and consistency of the Social Transformation Scale of ViraVida Program. The specific objectives were:

- To enable the continuation of evaluative research program to check possible impacts to strengthen employability, autonomy, self-esteem, community and family ties of teenagers and youngsters aged 16 to 24 years in situations of sexual exploitation,
- To contribute to the formulation, implementation and evaluation of public policies for youngsters under Federal Government, and
- To encourage scientific researches on the topic of sexual exploitation prevention and reduction.

Material and Methods

Material

The materials consisted on two different versions of the Social Transformation Scale of the ViraVida Program and their specific questionnaires, including a worksheet used to reach the final Scale. As shown below, the first version of the Scale had 90 variables. The final version has 42.

Likert Scaling was the option selected for the final questionnaire answers. Most of the questions have options in odd numbers (1-to-3 and 1-to-five), in order to give to the respondents a neutral option between positive and negative answers. The type of likert scales and their respective weights used on the questionnaire follow below, containing some of the variables originally in Portuguese (Tableau 1):
Table 1 - Weights used on some variables of the questionnaire (in portuguese).

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>Domains</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>P16- Working helps the way of acting and thinking of the people?</td>
<td>World of Work</td>
<td>16</td>
<td>-16</td>
</tr>
<tr>
<td>28</td>
<td>Courses and training help to get a better job.</td>
<td>World of Work</td>
<td>28</td>
<td>-28</td>
</tr>
<tr>
<td>33</td>
<td>How do you rate the support received by the community you live?</td>
<td>Family and Community Ties</td>
<td>33</td>
<td>-33</td>
</tr>
<tr>
<td>34</td>
<td>How do you rate your relationship with your parents?</td>
<td>Family and Community Ties</td>
<td>34</td>
<td>-34</td>
</tr>
<tr>
<td>47</td>
<td>How do you rate your relationship with people?</td>
<td>Self-esteem and Self-confidence</td>
<td>47</td>
<td>-47</td>
</tr>
<tr>
<td>48</td>
<td>Do you have aggressive behaviors frequently?</td>
<td>Self-esteem and Self-confidence</td>
<td>48</td>
<td>-48</td>
</tr>
</tbody>
</table>

Source: Authors.

Methods

Primary hypothesis investigated in this study was as follows:

Null Hypothesis (Ho1): The Social Transformation Scale of the Project does not have the criteria of validity and consistency needed to investigate the levels of World of Work, Family and community ties, and Self-esteem and Self-confidence of adolescents and youth aged 16 to 24.

The pre-testing was held in Federal District, Pernambuco and Rio de Janeiro, with 60 youngsters from 16 to 24 years. 30 of them in the intervention group and other 30 in the control group. Individuals were selected by the Regional Departments of SESI participants, and program partners, considering the selection criteria for age and intervention / control.

All respondents from 16 to 17 years were legally authorized by their legal guardians. Additionally, all respondents signed Terms of Consent, which were not accepted of the following groups: a) Individuals that do not have full legal capacity, cognitive or emotional disabilities and parents or guardians who are not qualified, b) Parents or legal guardians who have abused or neglected or were complicit in the abuse or negligence, and c) Parents or guardians who are unable to assess cognitive and emotional consequences of their children's participation in research.

The procedures were based on Exploratory Factor Analysis. The exploratory study is a preliminary study designed to develop or improve hypothesis, or to test and define methods of data collection (PIOVESAN; TEMPORINI, 1995).

The Content Validation variation was used in the deepening of the main concepts used in the first version of the Social Transformation Scale. In this option, the measure of validation can encompass a wide range of meaning of the concept studied. For example, the Citizenship can be understood from the perspective of Social Welfare, Labor Rights and Civil Rights. Several authors in different areas may have different approaches to the concept. In a comprehensive study on the concept, which filters up the slopes suited to the scale in the process of development, for the authors to have a better perspective. If a program wants to evaluate impacts of food education in a population, by applying a Social Transformation Scale on the intended impacts, which is needed to seek appropriate conceptual perspectives to these specific impacts. The characterization of the concept of youth autonomy in situations of sexual exploitation is not exactly equal to labor autonomy characterized into Brazilian Labor Rights. It may have some convergence, but not necessarily an equivalent conceptual representation to elaborate a scale.

All statistical procedures are exploratory, following the order of the classical factor analysis, to reach the variables that form the final scale. The procedures included revision of all the variables included in the final data set and check for inconsistencies and missing numbers. The other methodological procedures applied in this study were:
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- Analysis of the weightening variables for generating an ending the scoring scale.
- Calculation of the Cronbach’s Alpha standardized scale final score, including specific calculations for all dimensions of Scale.
- Principal Component Analysis of the variables scale final score.
- Varimax rotation of the factorial loadings.
- Developing a matrix including variables with better loading, ie, giving more consistency to scale, neutral loading, ie, that do not help the scale.
- Conducting workshop with the project managers and technicians to define the variables of the final scale.
- Definition of the final scale.

Preparation of the final questionnaire to collect data from the complete range.

Validity and Consistency

The main important scientific terms to the study are Validity and Consistency. Establishing the validity of a scale means to establish what you want to measure and to know about what you're talking about. "Only when we conclude that the study uses valid measures of its key concepts, we can hope to find valid results" (SCHUTT, 2004, p. 86).

For Schutt (2004), the scientific validity of a measurement can be achieved and evaluated by four different approaches: a) face, b) content, c) criterion, and d) construct.

a) The Face Validity is understood as a careful inspection or an empirical concept, which is that this observation is appropriate to the study. For example, interviewing people to count how often they have sexual intercourse per week can be a valid measure about sexual life. However, this may not be a convincing evidence of validity. The question of the number of sexual intercourse seems valid in one dimension of frequency measurement, but depending on the sexism of a community level, men may tend to respond that have more sex than they really are. In this case, the measurement validation would be invalid.

b) The Content Validity is one of the technical options taken to elaborate the ViraVida Social Transformation Scale. In this respect, in a search to encompass the full range of meaning of the concept studied. To determine this range of meaning, the investigator must review the literature to examine the different aspects or dimensions of the concept in order to identify the best approaches that are related to the scale (SCHUTT, 2004).

c) The Criterion Validity is established when the scores obtained on a measure can be accurately compared with those obtained with a direct validated phenomenon. For example, a measure of the concentration of alcohol in blood or urine test may serve as a criterion for validating a measure of self-reported drinking, when the questions asked about drinking refer to the same period.

d) The Construct Validity shows that a measure is related to a variety of other measures which are specified in a theory. In other words, to build the ViraVida Social Transformation Scale, we have used criteria, components, and constructs already studied in science, but not jointly, as a consolidated Scale. It is obtained when "a measure of the concept studied is associated with different types of measurement of the same concept" (SCHUTT, 2004, p. 115). For example, a specific concept of work is represented in the first version of the pre-tested questionnaire. This concept refers to professional qualifications, formal employment, ability to integrate into the labor market, among others.

In summary, Consistency means that a measurement procedure produces consistent results when the phenomenon being measured is not changing (SCHUTT, 2004). Perhaps the main understanding that should have the concept of consistency of a
variable or a domain, it is a prerequisite for validity analysis. It works as a sort of guide for researchers and managers defining variables and constructs in a more suitable manner, for the scale studied.

**Results and Discussion**

The analysis followed two different stages until it reaches the final Social Transformation Scale of the Program. The first one consisted on identifying domains or variables already validated in the international scientific literature. Those one were used as reference in the questionnaire used in pre-testing, which enabled the realization of the goal of this study. At this stage, the definition of items of measurement was established from research tools found in the literature.

The initial matrix included 90 variables divided into 05 different domains:

1. World of work: self-management, entrepreneurship and legal employment (variables 1 to 33)
2. Ability to make choices (34 to 45)
3. Strengthening of community and family ties (46 to 59)
4. Economic independence (variables 60-72)
5. Self-esteem and self-confidence (variables 73-90)

These areas were discussed and included in the matrix after discussions with ViraVida’s technical staff, including managers of the National Council of SESI, Regional Departments from 11 Brazilian States, as well as other partners in the project.


The second stage of the work consisted on analyzing statistical consistency of the questionnaire, through Factor Analysis, calculation of Cronbach Alpha and the other technical procedures as cited above. Initial rounds of tests were performed to check the variables with more consistency and validity in the initial scale derived from the pre-testing questionnaire, in order to consolidate a final scale with managers and technical staff.

A workshop was held with the technical staff of the Program, to achieve the final version of the Scale. 10 sexual exploitation experts and program managers attended the workshop held on January 31, 2013 in Brasilia, Brazil. During the workshop, a worksheet was elaborated, which consisted of loading, i.e, the strength of each variable to explain the consistency of the whole Social Transformation Scale.

Here, the variables marked as High Consistency (HC) are those that most contribute to the consistency of the scale. I.e, the variables whose loaded better than the others. The variables named as Medium Consistency (MC) do not cause damages on the consistency, but do not help it. The variables named as Low Consistency (LC) damage the consistency. All the MC and LC variables were analyzed as follows: a) keeping them on the original field after testing, b) excluding them of the scale, c) testing them on another domain to keep them, and d) delete or transfer them to the profile section.

Remember that the techniques of the
exploratory factor analysis, admitting thus a significant subjective character, where the opinion of those who know the scientific issues discussed at a scale are critical to the analysis of the validity of the variables. That is, even in cases where the variables affect the consistency, it is permitted to define the management of the remaining variable.

Table 1 presents the worksheet analyzed to reach the final Scale:

<table>
<thead>
<tr>
<th>Domains</th>
<th>LC</th>
<th>Exploratory Alpha (excluding variables without consistency)</th>
<th>HC</th>
<th>HC</th>
<th>MC</th>
<th>Cronbach Alpha (excluding variables with variation or minimum values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>0.6070</td>
<td>12, 20, 21, 24, 27, 38, 40</td>
<td>15, 16, 39</td>
<td>13, 14, 17, 18, 19, 22, 23, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 41, 42, 43</td>
<td>0.6588</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>0.5964</td>
<td>45, 46, 49</td>
<td>-</td>
<td>44, 47, 48, 50, 51, 52</td>
<td>0.3580</td>
</tr>
<tr>
<td>3</td>
<td>55</td>
<td>0.7074</td>
<td>57, 58, 59, 60, 61, 63, 64</td>
<td>-</td>
<td>53, 54, 55, 56, 62, 65, 66</td>
<td>0.7651</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>0.5859</td>
<td>69, 70</td>
<td>-</td>
<td>67, 68, 71, 72, 73</td>
<td>0.8772</td>
</tr>
<tr>
<td>5</td>
<td>86</td>
<td>0.6858</td>
<td>75, 77, 79, 80, 82, 85</td>
<td>78, 89</td>
<td>81, 87, 88</td>
<td>74, 76, 83, 84, 90</td>
</tr>
</tbody>
</table>

HC: High Consistency; MC: Medium Consistency; LC: Low Consistency

Source: Authors.

After the analysis of Consistency and Validity, the final Scale was composed by 42 variables (presented in Appendix), divided into three domains. 27 variables were excluded from the first version and the five domains of the initial matrix were reduced to three, containing variables with better loading or relevant content related to the Program.

The analysis was performed in STATA 8.0, with the final results presented in Table 2. The minimum level for Cronbach's Alpha was 0.7, i.e., from this value, the Domain was taken as consistent. This is a conservative value considered in the literature on the subject, since there are authors who advocate a minimum of 0.6. So, the final domains and variables are below:
Table 2 - Final results of final scale.

<table>
<thead>
<tr>
<th>Domains</th>
<th>Nº of items</th>
<th>Variables</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. World of Work</td>
<td>17</td>
<td>12; 20; 21; 24; 27; 38; 40;</td>
<td>0.7318</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15; 16; 19; 32; 17; 22; 25;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>37; 69; 70</td>
<td></td>
</tr>
<tr>
<td>2. Family and Community Ties</td>
<td>13</td>
<td>57; 58; 59; 60; 61; 63; 64;</td>
<td>0.7794</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65; 23; 35; 76; 67; 46</td>
<td></td>
</tr>
<tr>
<td>3. Self-esteem and Self-confidence</td>
<td>12</td>
<td>75; 77; 79; 80; 82; 85; 78;</td>
<td>0.7370</td>
</tr>
<tr>
<td></td>
<td></td>
<td>89; 81; 87; 88; 49</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td></td>
<td>0.8534</td>
</tr>
</tbody>
</table>

Source: Authors.

Conclusion

The null hypothesis of the study was not confirmed, since the Social Transformation Scale of the Program has the necessary criteria of validity and consistency to investigate the levels of World of Work, Community and Family Ties, and Self-esteem and Self-confidence of adolescents and youngsters aged 16 to 24.

Cronbach's Alpha is greater than 0.7 in the full Scale and its separate domains providing important elements for the ViraVida evaluative research. The variables have adequate level of correlation, providing security for the questionnaire, which will be applied in 14 cities and 11 states where ViraVida is performed.

Factor Analysis is based on exploratory procedures. It helps to determine the research problem and to accomplish the hypothesis with more precision (PIOVESAN TEMPORINI, 1995). However, the variables and constructs defined do not represent statistically significant results. Procedures did not include explanatory procedures, because the goal of the study was not to analyze the influence of one variable on another, but the correlations between them.

The Scale studied has scientific validity, but should not be replicated in the evaluation process of other programs and social interventions without conducting preliminary study of the scientific literature and studies about the needs and demands of different populations. These preliminary stages are essential to verify inclusion or exclusion of variables, and possible resizing of the Scale.

The use of scientific processes such as exploratory factor analysis can provide relevant information to investigate specific realities. Elements possibly subjective in statistical context are joining the qualitative perspective and experience of researchers and program managers in specific concepts covered in scales. These elements help to consolidate the full scientific assessment of ViraVida Program and to strengthen its position for its stakeholders.

It is recommended that the Exploratory Factor Analyses performed in this study is carried out again with the full database of the evaluative research to verify the consistency of variables and domains, in order to provide more evidences to analyze the results of the program evaluation.

References

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APPENDIX - FINAL SCALE QUESTIONNAIRE  (excluding profile variables/ in portuguese)

_Domain I – World of Work_

P16- Working helps the way people act and think?
[ ] 1- Yes
[ ] 2- No

P17- Have you worked in the same place for a long time?
[ ] 1- Yes
[ ] 2- No/Never worked

P18- Your living conditions have made you start working too early?
[ ] 1- Yes
[ ] 2- No/Never worked

P18.1- If yes, at what age have you started working?______________________

P19- Do you invest in your studies and / or work to get better results?
[ ] 1 – Always
[ ] 2 – Usually
[ ] 3 – Don’t Know/Don’t remember
[ ] 4 – Sometimes
[ ] 5 – Never

P20- What is the relevance of working with a formal employment contract?
[ ] 1-Very important
[ ] 2- Important
[ ] 3-Neutral
[ ] 4- not important
[ ] 5- irrelevant

P21- What is your responsibility to get a job?
[ ] 1- Very high
[ ] 2- High
[ ] 3- Moderate
[ ] 4-Small
[ ] 5- None

P22- How do you evaluate the life chances you have had?
[ ] 1- Excellent
[ ] 2- Good
[ ] 3- Average
[ ] 4- Poor
[ ] 5- Very poor

P23- How do you assess your willingness to work in things that most interest you?
[ ] 1- Very high
[ ] 2- High
[ ] 3- Moderate
[ ] 4- Small
[ ] 5- None

P24- Prejudice is a factor that makes finding a job very difficult
[ ] 1- Strongly disagree
[ ] 2- Disagree
[ ] 3- Neither agree nor disagree
[ ] 4- Agree
[ ] 5- Strongly agree

P25- Being poor affected / affects the chance to benefit from opportunities that life offered / offers me.
[ ] 1- Strongly disagree
[ ] 2- Disagree
[ ] 3- Neither agree nor disagree
[ ] 4- Agree
[ ] 5- Strongly agree

P26- Have you had any progress in the last 03 months getting the job you want?
[ ] 1- Yes
[ ] 2- No
[ ] 3- Do not Know/Do not remember

P26.1- If yes, what? ______________________
P27- Where do you see yourself in five years?
[ ] 1- Employed doing what I like and happy
[ ] 2- Employed
[ ] 3- Doing temporary work
[ ] 4- Unemployed, but looking for a job
[ ] 5- Unemployed and with no future

P28- Courses and training help getting a better job.
[ ] 1 – Always
[ ] 2 – Usually
[ ] 3 – Don’t Know/Don’t remember
[ ] 4 – Sometimes
[ ] 5 – Never

P29- Does your community have partnerships to improve the education of your community?
1 [ ] Yes
2 [ ] No

P29.1- If yes, do you participate in some way in these partnerships?
[ ] 1- Yes
[ ] 2- No

P30- Having completed courses and training increase the chance of finding a formal job?
[ ] 1- Very highly
[ ] 2- Highly
[ ] 3- Moderately
[ ] 4-Not significantly
[ ] 5- Not at all

P31- What is your need to earn money?
[ ] 1- Very high
[ ] 2- High
[ ] 3- Moderate
[ ] 4-Small
[ ] 5- None
P32- What is your level of need to work?
[ ] 1- Very high
[ ] 2- High
[ ] 3- Moderate
[ ] 4-Small
[ ] 5- None

Domain II – Community and Family Ties

P33- How do you rate the support you receive from the community you live in?
[ ] 1-Excellent
[ ] 2-Good
[ ] 3-Average
[ ] 4-Poor
[ ] 5-Very poor

P34- How do you rate your relationship with your parents?
[ ] 1-Excellent
[ ] 2-Good
[ ] 3-Average
[ ] 4-Poor
[ ] 5-Very poor

P35- In school, did you attend / participate in school groups (dance group, theater, chess, futsal team, etc.)?
[ ] 1- Yes
[ ] 2- No/ Never participated

P36- Do you know the strengths of your family?
[ ] 1- Yes
[ ] 2- No
[ ] 3- Don’t Know/Don’t remember
[ ] 4- My family doesn’t have strengths
[ ] 5- My family doesn’t have weaknesses

P37- How do you assess the structure of your family?
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P38- How do you rate the skills and the ability of your family to solve problems?
[ ] 1-Excellent
[ ] 2-Good
[ ] 3-Average
[ ] 4-Poor
[ ] 5-Very poor

P39- Does your family fight against each other how often?
[ ] 1 – Always
[ ] 2 – Usually
[ ] 3 – Sometimes
[ ] 4 – Never
[ ] 99- Don’t Know/Don’t remember

P40- Does your family have problems with a lack of money?
[ ] 1 – Always
[ ] 2 – Usually
[ ] 3 – Sometimes
[ ] 4 – Never
[ ] 99- Don’t Know/Don’t remember

P41- Anyone in your family uses drugs?
[ ] 1- Yes
[ ] 2- No
[ ] 3- Don’t Know/Don’t remember

P42- Do you suffer any discrimination on the part of your family?
[ ] 1- Yes
[ ] 2- No

P43- Suffering physical aggression from parents is a normal part of family life.
[ ] 1- Strongly disagree
[ ] 2- Disagree
[ ] 3- Neither agree nor disagree
[ ] 4- Agree
[ ] 5- Strongly agree

P44- How do you rate the help you have received from your parents so far?
[ ] 1-Excellent
[ ] 2-Good
[ ] 3-Average
[ ] 4-Poor
[ ] 5-Very poor

P45- The things your parents or guardians think about you affects you in any way?
[ ] 1 – Always
[ ] 2 – Usually
[ ] 3 – Don’t Know/Don’t remember
[ ] 4 – Sometimes
[ ] 5 – Never

Domain III – Self Esteem and Self Confidence

P46- How do you rate the relevance of the things that your parents talk about your life?
[ ] 1- Very high degree
[ ] 2- High degree
[ ] 3- Moderate degree
[ ] 4-Small degree
[ ] 5- No degree

P47- How do you rate your relationship with people in general?
[ ] 1-Excellent
[ ] 2-Good
[ ] 3-Average
[ ] 4-Poor
[ ] 5-Very poor

P48- How often do you show aggressive behaviors?
[ ] 1 – Always
Validity and consistency analysis of a social transformation scale for the impact evaluation of the ViraVida program

P49- keeping secrets about your personal problems from people in general is a good thing.
[ ] 1- Strongly disagree
[ ] 2- Disagree
[ ] 3- Neither agree nor disagree
[ ] 4- Agree
[ ] 5- Strongly agree

P50- How do you rate your educational skills?
[ ] 1- Excellent
[ ] 2- Good
[ ] 3- Average
[ ] 4- Poor
[ ] 5- Very poor

P51- How do you assess your ability to interact with people??
[ ] 1- Excellent
[ ] 2- Good
[ ] 3- Average
[ ] 4- Poor
[ ] 5- Very poor

P52- How many activities you developed / developing after school?
[ ] 1- None
[ ] 2- Little
[ ] 3- Many
[ ] 99- Don’t Know/Don’t remember

P53- How do you rate your relationship with your family?
[ ] 1- Excellent
[ ] 2- Good
[ ] 3- Average
[ ] 4- Poor
5-Very poor

P54- Being careful is a good thing.
[ ] 1- Strongly disagree
[ ] 2- Disagree
[ ] 3- Neither agree nor disagree
[ ] 4- Agree
[ ] 5- Strongly agree

P55- Have you ever practiced any sport?
[ ] 1- Yes
[ ] 2- No/Never doing

P56- How often do you practice any physical activity?
[ ] 1 – Always
[ ] 2 – Usually
[ ] 3 – Don’t Know/Don’t remember
[ ] 4 – Sometimes
[ ] 5 – Never

57- What do you think about learning a new professional skill?
[ ] 1-Excellent
[ ] 2-Good
[ ] 3-Average
[ ] 4-Poor
[ ] 5-Very poor