

# A Systematic Literature Review of the Child Neglect Measurement Scale

Yijun Zheng

New York University, New York, US

**Abstract.** Child neglect has an important impact on children's physical and mental development. However, the concept and definition of child neglect have not been unified, and the evaluation methods, discriminant standards and measurement scales of child neglect used in different countries are also different. To summarize and analyze the characteristics and limitations of existing measurement tools, this study searched 5 Chinese and English databases, obtained 22 studies on child neglect measurement, and conducted a systematic literature review on them. The results show that the concept and definition of child neglect are still not unified. Most of the existing child neglect measurement scales have good reliability and validity, but there are differences in regions, groups, ages, measurement methods and translation versions, and most of them do not pay attention to neglect duration. Studies lack support from prevalence data. It can be seen that the researchers need to further develop systematic review about measurement tools of child neglect. On this basis, develop comprehensive measurement methods for different subjects, improve the accuracy and scientificity of the translated version, and make it more suitable for the national cultural context.

**Keywords:** Child Neglect; Measurement Scale; Systematic Literature Review.

## 1. Introduction

Child neglect is a prevalent public health problem worldwide, with wide-ranging and far-reaching impacts on children's social-emotional development. Neglected children may experience serious and lasting consequences, such as long-term effects on relationships; and an increased risk of mental health problems, including depression and dissociative disorders. Neglect is the most common and possibly the most harmful of all forms of child abuse, but in the field of child abuse, researchers are more concerned with the obvious harmful forms, such as physical and sexual abuse of children. This is in part due to the difficulty in defining and operationalizing the boundaries of neglect, making it difficult to study the construct through measurement.

However, understanding and improving the measurement of child neglect is crucial to the design and evaluation of interventions to reduce child abuse. If a more consistent definition of child neglect and clearer and better measurement methods are applied to empirical surveys, especially prospective studies, our understanding of child neglect will be greatly improved. Therefore, this study will systematically integrate and analyze the previous studies on child neglect measurement in order to provide reference information for future research design.

## 2. Literature Review

### 2.1 The Concept of Child Neglect

In the research, child abuse and neglect are often discussed together, and there are obvious differences in the meanings of the two. Child abuse often refers to intentional and active acts of violence by abusers, including physical, psychological or sexual abuse that may harm children's body or mental health, such as beating children or having sexual intercourse with children. No matter what the motivation of this behavior is, and whether the child has suffered physical or psychological harm, this behavior is abuse. Neglect is an act of inaction, which is often regarded as a form of abuse. Generally speaking, when parents do not take necessary actions to meet the basic development needs of their children, neglect occurs, such as not providing enough food or supervision. Regardless of whether children are really harmed by neglect, and regardless of the reasons for not meeting children's needs, such behavior is neglect.

The subtypes of child neglect can be broadly divided into the following four categories: emotional neglect, educational or cognitive neglect, supervised neglect, and physical neglect. Emotional neglect focuses on emotion, support, and companionship in the parent-child relationship; cognitive neglect emphasizes the cognitive stimuli that parents provide their children, such as parental involvement in the child's school and academics, and the provision of learning opportunities. This is more similar to the educational neglect proposed by Goodvin et al., which is the failure to ensure that children attend school regularly and to care for children's success in school. Supervised neglect refers to the failure of adults to ensure the safety of children, including failure to ensure the safety of activities, the safety of the environment, the safety of alternative care, and some areas where adult supervision is lacking; physical neglect refers to whether parents provide adequate food, shelter, clothing and medical care. In conclusion, neglect is a heterogeneous phenomenon with respect to behavior, outcomes, and contextual factors that encompass it, and its complexity prevents scholars from accurately defining and measuring child neglect.

## 2.2 The Studies Related to Child Neglect Measures

Some widely used child neglect measurement tools, such as the International Association for the Prevention of Child abuse and neglect Child abuse screening tools Child version and Family version. The above tools can be operated by child welfare workers, other professionals who are familiar with the family or professionals from different backgrounds. In order to verify the applicability of children's neglected measurement scales in different cultural settings, many studies have verified their reliability and validity. For example, Meinck et al. reviewed the implementation of the screening tool by conducting pilot tests in different countries or regions. Some researchers also supported the Child abuse screening tools child family version as a reliable, effective and highly available tool to identify child victims. Based on the results of contemporary psychological abuse and neglect, Deng Yunlong et al. developed the child psychological abuse and neglect scale for elementary and secondary school students. In the form of scale measurement, except for the research by Kantor et al [7] and Yang Shichang et al, few tools rely on children's self-reported neglect measures; some tools designed for adult information providers require respondents to report their attitudes and behaviors towards newborn parenting to identify parents at risk of child abuse and neglect, such as the Identification of Parents At Risk for child Abuse and Neglect (IPARAN) .There are also tools that ask respondents to review their childhood experiences of abuse and neglect in order to assess the impact of these experiences on adulthood, such as the Child Trauma questionnaire and the Child abuse and neglect scale.

The types of neglect included vary widely between different tools. Some measures assessed only one component of neglect, such as Zhang et al. asked adolescents about a range of abuse experiences, but limited questions about neglect to examples of behavior that reflected improper care or lack of attention to children. Some studies just focus on children's physical and emotional neglect. There are also some measurements that assess a wide range of neglect behaviors, focusing not only on children's emotional and physical neglect, but also on their educational neglect and supervisory neglect. Finally, the expected users of the measurement tool also varied. The graded Care Archive Second edition was designed for use by social workers, health visitors, or other professionals involved in the assessment of child care, while the Child Abuse and Neglect Awareness Scale is used by medical school students.

## 2.3 Summary

From what has been discussed above, the measurement tools used to identify and evaluate child neglect face multiple challenges in the conceptual operationalization process. This is related to the complexity of the concept of child neglect, such as confusion and overlap between physical and emotional neglect, neglect and other forms of abuse, as well as changes in the concept of child neglect in different historical periods and different cultural contexts. In addition, scholars' own ideas may also affect their definition and measurement of neglect. Deng Yunlong and others put physical neglect

and supervisory neglect together to measure. He believes that neglect includes emotional neglect, educational neglect and physical & supervisory neglect, while some scholars believe that there are obvious differences between physical neglect and supervisory neglect, which should be measured separately.

This study focused on the following three questions.

1. What are the characteristics of the studies involving child neglect and its subcategories in terms of the subjects studied and the measurement tools used?

2. What methods did these studies use?

3. What is the rigor, quality and practical feasibility of such research methods? In conclusion, the aim of this study was to systematically integrate past studies on child neglect measurement in order to provide reference information for future study design.

### 3. Method

#### 3.1 Search Strategy

After determining the Chinese and English keywords as search terms (Table 1), we searched the journal articles on the measurement of child neglect in EBSCOhost, PubMed, CNKI, Wanfang and VIP in the past 20 years (2002-2022). A total of 891 articles were obtained.

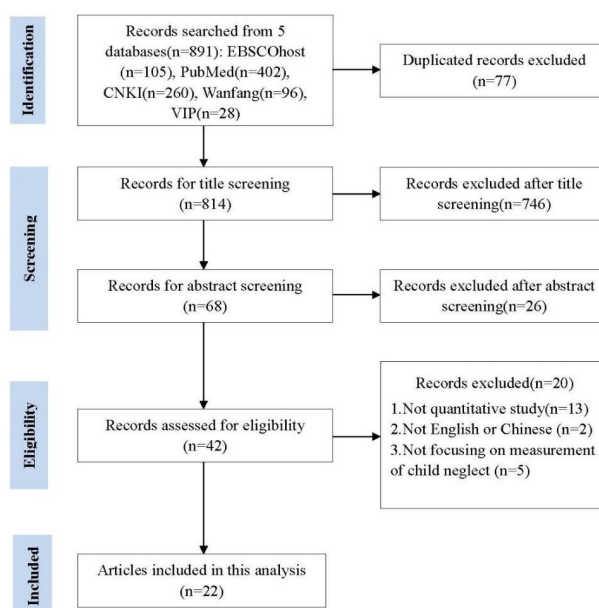
**Table 1.** Keywords for literature retrieval

Databases	Keywords
EBSCOhost PubMed	1# child neglect OR physical neglect OR emotional neglect OR educational neglect OR safe neglect OR medical neglect OR inadequate supervision OR supervisory neglect 2# scale OR questionnaire OR assessment OR instrument OR measurement OR test OR tools OR measure

#### 3.2 Eligibility Criteria

We searched for quantitative studies on the measurement of child neglect the included studies met four criteria: (1) studies of the prevalence of child neglect; (2) studies using a representative sample of the population; (3) Studies in English; (4) peer-reviewed studies.

#### 3.3 Screening



\*The EBSCOhost includes many databases such as Web of science, SCOPUS, PsycINFO, PsycARTICLES, JSTOR, and so on.

**Figure 1.** Flow of information through this review

Firstly, with the help of electronic software (Endnote), we removed duplicates and selected the publication which can provide the most detailed account. In Phase 2, we screened records by abstract and title. To identify these potential eligible studies that may not have been captured in the stage, we also screened reference lists and adopted studies which were cited by existing studies in our software. In Phase 3, we carefully assessed the full text of screened in articles. According to the eligibility criteria of literature inclusion, the literatures of non-quantitative, non-English and non-focused child neglect measurements were deleted. Finally, on the basis of completing the first screening, we repeated the above four steps for further screening. Finally, 22 articles were obtained (Figure 1).

### 3.4 Data Extraction

With the aim of retrieving the relevant data from each article matching our inclusion criteria, a template was used to guide this extraction process. The template including the first author, the year of publication, the response rate of the questionnaire, measuring tools, sample size, age range sex ratio and information of the place of investigation and research, etc. The results of basic information extraction of literature can be found in the results section.

Finally, 22 studies on child neglect measurement tools published from 2004 to 2022 were included in this review. The studies covered 20 countries and territories, with two studies including subjects from multiple countries and nine studies covering both rural and urban samples. The sample size ranged from 30 to 42194, with women accounting for between 40 and 60 percent of the children and their parents. The response rate of the questionnaire ranged from 28.5% to 100% , and approximately 75% studies had a response rate of more than 90% . A few studies failed to report the response rate. The Cronbach's  $\alpha$  coefficient of measurement tool ranged from 0.38 to 0.92, and more than 80% of the studies had a reliability coefficient of more than 0.8.

## 4. Search Results

### 4.1 Dimension of Measurement Tool

There were 10 studies that only included two dimensions of physical neglect and emotional neglect. In addition, the vast majority of the studied measurement tools included four dimensions: physical neglect, emotional neglect, supervisory neglect, and educational neglect. Physical neglect examines whether parents provide their children with adequate material needs, such as food, shelter, clothing, and medical care; emotional neglect focuses on evaluating whether parents provide emotional connection, support, and companionship to their children in their parent-child relationship. In the evaluation of emotional neglect, child would be asked whether the caregiver make him or her feel better when he or she is sad or afraid; supervisory neglect focuses on specific initiatives by parents in dealing with child misconduct; educational neglect / cognitive neglect focuses on whether parents ensure that their children are educated and assesses the cognitive stimuli and learning opportunities that parents provide to their children [7]. Some questions asked if parents are involved in their children's school and academic studies. On this basis, some studies have added to safety neglect. That is, parents ignore children's living conditions and put them in health problems or safety risks such as falls and burns. The most extensive dimension of measurement tools comes from the research of Pan Jianping et al., which covers six aspects: physical neglect, emotional neglect, medical neglect, education neglect, safety neglect and social neglect. However, this paper does not introduce the construction reasons and specific topics of various dimensions in detail. The child-neglect scale in four studies was used as a component of the measure of child abuse and neglect only, with fewer items, and was used as a single-dimension scale.

### 4.2 Procedure

Of all the included studies, the participants in 14 studies were students aged between 6 and 21, while the research subjects in 8 studies were parents whose children were under the age of 18. Most of the studies collected data by distributing the questionnaire in the school and required the counselors

or head teachers to pay more attention to the students' emotion at any time in the process of finishing the questionnaire. Some of the studies with parents as participants were conducted at home. A study let participants fill out questionnaires in centralized meetings [22], and part of studies chose to collect data in hospitals. In terms of measurement methods, all the data of 20 studies were collected by filling out questionnaires directly on the spot, and one study was interviewed by telephone. In addition, another study used computer programs to ask oral questions and touch screen answers, taking into account children's acceptability and interest.

#### **4.3 Key Features of Measurement Tools Used in Prevalence Studies**

The scales used in the study included the existing scale and the self-made scale, of which 8 studies were translated according to the language of the study site. The rest of the scales were adjusted in quantity and item based on the original scale. For example, in one study, the Multi-dimensional neglect behavior scale-Adult recall scale was adapted to the Multi-dimensional neglect behavior scale-Child recall scale. With regard to the number of questions in the scale, the number of questions used in 10 studies was more than 50, while the number of questions used in the other 12 studies was less than 50. The scale used in the study measured the occurrence of each type of neglect in different forms. Most of the scales used closed problems. 15 studies first described different types of neglect behavior in detail. Then child neglect was measured by asking participants to report the frequency of such behavior. Three studies asked participants to choose according to their attitudes towards the described behavior. For example, children were asked to describe how often they were not satisfied with their basic need and spiritual needs, or parents were asked to describe how often their children were alone at home; one study asked participants to make choices based on the severity of the neglect behavior. In addition, three studies used open-ended questions, such as evaluating child neglect by asking children to describe who cares about them most in the family, or by asking parents to describe the observed situation of their children. In the expression of item sentences, Given the comprehension ability of children, some studies using the popular language of children to describe. In addition, a study turned the questions into a presentation of introducing family photos and playing parenting scenes, asking children to choose the scene that most resembles them.

### **5. Discussion**

The 22 studies involved in this paper come from different countries and regions, which reflect the applicability of measurement concepts and measurement tools in different cultural context, and provide a lot of evidence for the development of child neglect measurement tools. Without considering different translation versions of the same scale, there are 14 measurement tools for children or parents. The data collection of the study is mainly relied on questionnaires, as well as telephone interviews, oral questions and Computer Assisted Personal Interviewing. The reliability of most of the measurement tools is good, and the Cronbach coefficient of more than 80% of the studies is more than 0.8. At present, ICAST and CTQ are the mainstream measurement tools in the field of child neglect, but both of them focus on child abuse, and the dimensions of neglect are only emotional neglect and physical neglect; the former is the most widely used in the world. In addition, the latest research in this field has taken children and parents together as measurement objects [17]. However, there is still some scope for improvement in the current research on child neglect measurement.

Because current studies of child neglect mostly discuss child neglect and child abuse together, the concept of child neglect is often left unaddressed when the measurement tools include the two major dimensions of abuse and neglect. In a few research which only focus on child neglect, the concept of child neglect is still not clear. In addition, the main problem is not only to solve the influence of environmental factors such as poverty or racial differences, but also to make a reasonable and accurate judgment on whether parents' behavior meets the basic requirements. Due to the cultural differences, scholars' understanding of child neglect is not the same. In response, the ISPCG has played a leading role in developing and pilot testing a new set of measurement tools. In the discussion of the need for

a unified definition and research tools, it points out that the identification of specific standards on children neglect should take into account the country's socio-cultural background.

Child neglect is often seen as the most harmful form of abuse and is of great significance for the prevention of abuse that seriously harms children. In one study, child neglect was defined as the failure of caregivers to fulfill their care responsibilities in a sociocultural manner and to meet the development needs of children. Since then, relevant studies have made some adjustments to the concept of neglect, but they have still focused on the lack of caregiver responsibility that has impaired children's health or development. Generally speaking, it is difficult to uniformly define the concept of child neglect in various countries and regions, but the behavior deviation and ideal behavior standards reflected in different types of measurement tools can provide reference for enriching and perfecting this concept. It can also serve the design of intervention programs.

The characteristics and limitations of measurement tools for different groups

Research shows that children under the age of 3 are the most vulnerable to neglect.[24] For children whose language ability and cognitive function are not enough to participate in the measurement, researchers often take their parents as subjects to assess the neglect they experience. Such studies also focus on the neglect of children between the ages of 10 and 12. The measurement validity of the study on parents highly depends on parents' subjective understanding of the questions and the authenticity of the answers. Although some literature provides evidence that there is no deviation between the data reported by parents and those reported by teenagers. Participants may not give an objective answer in order to cater to the values of society. Because the concept of child neglect is obviously negative, parents may not willing to give a true answer in the process of assessment.

The research for child participants can obtain the information that is most consistent with children's subjective feelings and experiences. However, some studies have proved the influence of the development level of cognitive function on the reliability of the answer, that is, the answers' reliability of older children is higher than that of young children. It also indicates the necessity of taking parents as participants in research. In terms of research ethics, the questionnaire is filled out anonymously, which implements the principle of confidentiality and respects participants' right to refuse to answer. However, in a study of child abuse, the response rate was not adversely affected when it was emphasized to participants that there was no commitment to absolute confidentiality. In terms of reliability, all of the measurement tools that used in included studies have good reliability which are no less than 0.7. However, some partial subscales of them have poor reliability. For example, both studies used the CTQ questionnaire for data collection in China, but the reliability of the physical neglect component was not higher than 0.5. Similarly, the reliability of the Indonesian version of ICAST-C is poor, only 0.445, which is considered unreliable. However, ICAST-C measurements have high reliability in China, India and Russia. Poor reliability means that some translated scales need to be further adjusted to improve their accuracy and scientificity.

In terms of the specific content of the measurement, although the measurement tools all focus on the frequency and severity of neglect, they do not pay attention on the duration of neglect. In addition, only using a single questionnaire method for measurement has so many limitations, and the future research on child neglect should use comprehensive measurement methods for different subjects. That is, it can be combined with observation, clinical judgment and other methods, especially when understanding the neglect of young children. In the study involved in this paper, only one study surveyed both children and parents. The conclusions of another study were based on scale analysis and clinical judgment. In addition, the current research on child neglect has not fully considered the developmental particularity of children at different stages. A certain behavior could be defined as neglect for young children, but it may not for older children.

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