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# The Arabic/Lebanese Adaptation of Child Abuse Potential Inventory

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**Abstract**

Lebanon lacks the proper instruments to detect and screen for child abuse potential. This study aimed to adapt the Child Abuse Potential Inventory (CAPI) for the Arabic/Lebanese society. The participants of the study were 350 caregivers from Lebanese society. In terms of the validity analysis, construct and criterion-related validity analyses were employed. The results of the confirmatory factor analysis showed a construct of 12 factors and 153 items. In the criterion-related validity analysis, both CAPI and Depression, Anxiety, Stress scale (DASS) scales were found to be significantly correlated ($p < .05$). In terms of the reliability analysis, internal consistency was computed by using Cronbach's alpha reliability coefficient. The reliability coefficient was found to be .838 for the total scores of CAPI. Based on these results, the Arabic version of CAPI is considered a valid and reliable instrument that can be used for detecting and screening child abuse potential in an Arabic/Lebanese sample.

**Keywords**

child abuse, child abuse potential, psychometric properties

## Introduction

Child abuse potential is defined as the risk or possibility of physically maltreating a child and refers to caregivers' self-reporting of the probability of child abuse occurrence (Begle et al., 2010; Lowell & Renk, 2017). It involves the encouragement of corporal punishment usage and is linked to dysfunctional parenting methods (Rodriguez, 2008). Cases of child abuse are usually recognized after the act has been performed (Doueck, 1995; Lazenbatt & Freeman, 2006). Therefore, to prevent child abuse before harm occurs, identification of the child abuse risk is crucial via early recognition of families with child abuse potential. In scanning for child abuse, self-report measurements are conventionally implemented (Camilo et al., 2016; Saini et al., 2019). Such measurements usually rely on caregivers' conscious realization of feelings and acts toward children and are affected by social appeal and caregivers' hesitation to disclose child abuse (Fazio & Olson, 2003). To overcome such disadvantages and to provide information concerning the possibility or potential for the respondents to maltreat their children, the Child Abuse Potential Inventory (CAPI) was developed by Milner and Ayoub (1980), which has become one of the most effective and common assessment measures around the world (Laulik et al., 2015).

Studies on the Inventory started in 1976. In the process of developing the scale, more than 700 books and scientific articles were examined, and the general characteristics of child abuse perpetrators were thoroughly investigated. Resultantly, it was found that having unrealistic expectations that are not compatible with the child's age and development, feeling displeasure with the child's behaviors, problems in the family and in interpersonal relationships, loneliness, emotional immaturity and vulnerability, depression and anxiety, dependent personality, rigidity, problems in anger management, and history of childhood maltreatment were the common characteristics of parents who maltreat their children. Hence, two main structures, which are psychological problems such as stress, unhappiness and rigidity, and relationship problems with the child and other people, were included in the Inventory (Milner et al., 1988; Milner & Wiberley, 1979). CAPI was developed as a 160-item caregiver-report instrument. The potential for abuse is examined through the scores of an abuse subscale, which provide a quantitative illustration in which participants have common traits with identified physical abusers (Milner, 1994). In addition, the Inventory encompasses six illustrative subscales, which are Distress (irritability, depression, little

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self-restraint, and fright), Rigidity (the belief that children must always be clean, tidy, compliant, and silent), Unhappiness (absence of self-satisfaction, discontent, and seclusion), Problems with child (viewing the child as misbehaving and slow), Problems with family (viewing the household members as having troubles and quarreling), and Problems with others (thinking that others make one's life more difficult and cause suffering) (Blinn-Pike & Mingus, 2000). The CAPI also includes three validity scales, which are the random response scale, lie scale, and inconsistency scale. These scales are combined to construct three response distortion indexes: the faking bad, the faking good, and the random response index (Milner, 2004).

The reliability and the validity of the measure have been tested in a number of studies. In terms of the reliability of CAPI, it was found that the internal consistency coefficients of CAPI vary between .92 and .95 for general population, at-risk, physically abusive and neglectful parent samples (Milner, 2004). In terms of the convergent validity of CAPI, Milner et al. (1988) found that child abuse potential is significantly correlated with stress ($r = .71$, $p < .05$) and depression ($r = .71$, $p < .05$). In another study, it was found that the scores of CAPI are negatively correlated with the Ego-strength and Lie scores of the Minnesota Multiphasic Personality Inventory (Robertson & Milner, 1983). In a study related to the cross-validation of CAPI conducted by Milner et al. (1986), a factor analysis revealed six descriptive factors, which are Rigidity, Distress, Unhappiness, Problems with Family, Problems with Child and Self, and Problems with Others. The comprehensive conceptualization of child abuse potential and the psychometric soundness of the instrument are the major advantages of CAPI. Another advantage of the instrument is the clinical implications of the data it provides. It can assist efforts targeted at the intervention and avoidance of child abuse, as it is highly beneficial in screening and identifying such child abuse risk (Cerny & Inouye, 2001; Rodriguez, 2010; Silovsky et al., 2011). Recently, the Inventory has been used in many countries for monitoring and scanning child abuse potential as well as the detection of those parents who are at risk of abusing their children (Milner, 2003; Milner & Ayoub, 1980).

To the best of the researchers' knowledge, two separate studies have previously been conducted to adapt CAPI into Arabic in Oman. In the first study, Al Abduwani et al. (2017) conducted the translation study of CAPI. In the second study conducted by Al Abduwani (2018), the reliability and validity of the Arabic version of CAPI were examined based on a sample of pregnant women in Oman. Apart from these two studies, no instrument has been developed or adapted to examine the concept of child abuse potential in a general Arabic population, despite the fact that child maltreatment remains a prevalent issue in the Arabic region. The problem is generally disregarded or even condoned and endorsed; hence, the maltreated children frequently suffer while the majority of offenders remain unpunished (Bamatraf, 2019). Even though all Arabic countries have endorsed the United Nations Convention on the Rights of the Child, there are insufficient laws that prohibit the physical and inhuman disciplining of children (Al-Mahroos, 2007). Lebanese laws, similar to many other countries in the region, do not directly prohibit physical abuse, while criminalization of the acts inflicted on children is usually based what is deemed acceptable according to the traditions of the general population. This context, in which children are deprived of fundamental legal protection, has deteriorated as a result of socio-economic instability, political conflicts (Insan Association, 2014; Ressler, 2008), and the cultural practices that view physical discipline and corporal punishment as a necessity for child rearing (Itani et al., 2014). According to United Nations International Children's Emergency Fund (UNICEF, 2016), children in Lebanon are extremely susceptible to maltreatment, victimization, child labor, and marriage and as the reporting of child abuse is not mandated by specific laws, these incidences remain unrecognized. According to a report published by UNICEF (2019), 57% of Lebanese children between the ages of 1 and 14 have encountered a minimum of one type of psychological or physical maltreatment from a member of their family. The adaptation of CAPI may provide a measure that can facilitate the detection, intervention, and avoidance of child abuse in Lebanon and other countries in which the Arabic language is spoken that have similar characteristics to Lebanese culture. Hence, taking this as the starting point, this study aimed to translate CAPI into Arabic, as well as to conduct its validity and reliability studies.

## Method

### *Participants*

The participants in this study included caregivers (single-married) of children between the ages of 0 and 18. In the field, there are various opinions related to suitable sample sizes for scale adaptation studies. Kline (1994) argued that the sample size of an adaptation study should be twice the amount of the items incorporated in the analysis. Therefore, in this study, the researcher planned to administer the 160-item CAPI scale to a minimum of 320 participants. The data were collected through the convenience sampling method. Participants were recruited through online surveys, which were distributed via email and social media, while some forms were also administered face-to-face through non-governmental organizations. Although the questionnaires were administered to a total of 367 participants from the general population, due to the large number of omitted items, some of the forms were excluded. Hence, the final number of caregivers included in the study amounted to 350. The study was based on a general sample and a clinical sample of parents identified as being abusers and/or at risk was not included.

In regard to the gender of the participants, 75.5% ($n = 265$) of them were female and 24.5% ($n = 85$) were male. In

terms of the age groups of the participants, 10.9% ($n = 38$) of them were between 18 and 25 years old, 30.3% ($n = 106$) were between 26 and 36 years old, 33.4% ($n = 117$) were between 37 and 46 years old, and 25.4% (89) were 47 years old and above. In terms of their education, 20% ($n = 70$) of the participants were graduates of primary school, 27.1% ($n = 95$) of them were graduates of secondary school, 20.3% ($n = 71$) of them were graduates of high school, and 24.9% ($n = 87$) of them were graduates of university. Furthermore, 7.4% ($n = 26$) of the participants had a master's/PhD and 0.3% ($n = 1$) had a college degree.

## Instruments

*CAPI.* CAPI was developed by Joel Milner for the purpose of assessing the child abuse potential of caregivers. The Inventory comprises 160 self-report items, with "agree" or "do not agree" as possible responses. It usually takes 15 to 20 min to respond to all items (Milner et al., 1988).

CAPI consists of an Abuse subdimension and six descriptive subdimensions, which are Unhappiness, Rigidity, Distress, Problems with Family, Problems with Others, and Problems with Child and Self. In addition, CAPI includes two other subdimensions, namely the ego-strength scale and the loneliness scale, developed by the subset scores of 160 items. To elaborate distortions in responses, three validity scales, namely the random response scale, the lie scale, and the inconsistency scale, were included in CAPI. The scoring of the responses is made according to a manual of scoring where every response has a different score according to this manual. The potential for abuse is examined through the scoring of the Abuse subscale, obtained from summing the scores of the remaining six scales. The highest possible score achievable in the Abuse subscale is 486. In the scoring, two cut-off scores are provided for differentiating among possibly non-abusive and abusive caregivers: 166 and a stricter score of 215. It was advised by Milner that the cut-off scale of 215 should be used when the sample is extracted from the general population, whereas 166 is used when abuser groups are possibly involved (Milner, 2004). Those individuals who score above this cut-off are considered to be the "riskful group," while individuals who score under the cut-off are categorized as "normal" in terms of child abuse potential (Kutsal, 2004; Milner et al., 2010; Walker & Davies, 2010).

*Depression, Anxiety, Stress scale.* The Depression, Anxiety, Stress scale (DASS) was developed by Lovibond and Lovibond (1995) for the purpose of explaining, examining, and apprehending the omnipresent meaning of emotional state. In this study, DASS was implemented as a criterion measure to assess the criterion-related validity of the Arabic Form of CAPI.

DASS consists of three scales that examine the emotional disruption caused by anxiety, depression, and stress. The three scales consist of 14 items each, which are split into three- to five-item subscales with corresponding subjects. The self-reported scale is scored on a 4-point Likert-type scale with answers ranging from 0 (*did not apply to me at all*) to 3 (*applied to me very much, or most of the time*), which examines the intensity of participants' experiences of these events during the previous week. In a normative population, Cronbach's alpha coefficients for the DASS were found to be 0.91, 0.84, and 0.9, respectively. The minimum and the maximum scores of DASS vary according to the severity labels, which are normal, mild, moderate, severe, and extremely severe. For normal levels of anxiety, depression, and stress, the scores vary between 0 and 9 in the Depression Scale, 0 and 7 in the Anxiety Scale, and 0 and 14 in the Stress Scale. The scores are multiplied by 2 to calculate the final score. Apart from these scale scores, it is also possible to compute a total score via the summation of the three scale scores. In this study, the total DASS score was taken into consideration in the analysis. The DASS was adapted into Arabic by Taouk Moussa et al. in 2017. Cronbach's alpha values for the DASS in the Arabic version were found to be 0.93, 0.90, and 0.93, respectively (Taouk Moussa et al., 2017).

According to a number of findings in the literature, there is a direct relationship between parental depression and emotionally detached and negative parenting (Afifi et al., 2006; Elgar et al., 2007; Gao et al., 2010). In addition to the fact that parental psychopathology is correlated with parenting stress, it has also been linked to higher rates of child maltreatment (Crouch & Behl, 2001; Rodriguez & Richarson, 2007). As the subdimensions of CAPI, such as distress, unhappiness, loneliness, and ego-strength, are related to the psychological states of parents, DASS was chosen as the criterion-related validity measure in this study. In addition, no other scale concerned with child abuse or child abuse potential has thus far been adapted into Arabic.

## Procedure

Prior to commencing the study, permission to adapt CAPI into Arabic was sought from Dr. Joel Milner, the author of the scale. Subsequently, approval to implement the study was obtained from the Ethics Board of Near East University. In the study, the first stage involved the translation of the instrument from its original English form into Arabic. Subsequently, a number of specialists were consulted to evaluate the preliminary Arabic form in terms of the quality of the Arabic translation and the utility of the items for assessing child abuse potential. In terms of the validity of the instrument, criterion-related and construct validity analyses were performed, while for the reliability study, internal consistency analysis was conducted.

The study started with the translation of CAPI. In this process, both forward and backward translation studies were carried out. In the forward translation, two professionals translated the scale from English to Arabic and subsequently in the backward translation, two native Arabic speakers

translated these two initial Arabic versions back into English. All different translations were collated and compared by professional and native Arabic-speaking experts to produce the final Arabic version that best corresponded to the original English version. Afterward, the Arabic version was examined by a professional Arabic editor to assess the language and wording. To ensure the suitability and appropriateness of the word choices and meanings in the Arabic version, five experts from the fields of child development and education, psychology, and child protection were consulted to examine the comprehensibility of the items in Arabic, the efficiency of the items for assessing child abuse potential, and the cultural appropriateness of the items; required revisions were then made based on the feedback provided by these experts.

Prior to the pilot study, the Arabic CAPI was tested in a pre-pilot study. In the study, the instrument was administered to 10 parents (five females and five males). After completing the forms, each of the 10 participants was interviewed and was asked if there were any items with which they experienced difficulties in terms of understanding or responding. By considering their feedback, several items were revised to provide consistency with Arabic/Lebanese culture. Following the correction of several grammatical and phrasal mistakes, the pilot study was conducted. The scale was administered in the pilot study through a combination of social media and face-to-face methods with 367 parents living in Lebanon. On average, each administration lasted between 20 and 30 min. After the data were collected, LISREL (ver, 8.80) and SPSS 22 software were used to conduct the validity and reliability analyses.

## Results

In terms of the adaptation of CAPI into Arabic, validity and reliability studies were performed. For the validity study, construct and criterion-related validity analyses were performed. In addition, the correlations between the subdimensions of CAPI were examined. In terms of the reliability study, Cronbach's alpha coefficients were examined to assess the internal consistency.

### *Validity*

*Construct validity.* To assess the instrument's construct validity, conformity factor analysis (CFA) was performed for each of the 12 constructs of CAPI, which are Abuse, Lie, Random Response, Inconsistency, Distress, Rigidity, Unhappiness, Problems with Child and Self, Problems with Family, Problems with Others, Ego-strength, and Loneliness. Initially, a CFA model was created for the Abuse subscale, which consisted of 77 items. Five items (3, 5, 9, 132, and 145) that were determined to have low variances were removed from the scale. Following the removal of these items, factor analysis was repeated. Resultantly, 72 items that had high factor loadings remained in the subscale. The same procedure was followed for the Lie, Random Response, Inconsistency, Distress, Rigidity, Unhappiness, Problem with Child and Self, Problem with Family, Problem with Others, Ego-Strength, and Loneliness subscales.

In the Lie subscale, which consisted of 18 items, one item (110) that had low variance was excluded from the scale, which resulted in 17 items remaining in the scale. In the Random Response scale, which consisted of 18 items, three items (1, 59, and 116) that had low variances were removed, resulting in 14 items remaining in the scale. The Inconsistency subscale consisted of 20 item-pairs. As a result of the created CFA model, three item-pairs that had low variances were excluded (3–76, 44–70, and 87–141). Ultimately, 17 item-pairs were left in the scale. In the Distress subscale, the model initially created consisted of 36 items. After the removal of one item (99) that had low variance, 35 items remained in the scale. In the Rigidity subscale, which consisted of 14 items, one item (7) that had low variance was excluded, leaving a total of 13 items remaining in the subscale. One item (152) that had low variance was excluded from the Unhappiness scale. Following the removal of this item, 10 items remained in the subscale, which initially consisted of 11 items. From the Ego-Strength scale, one item (20) that had low variance was excluded. Following the removal of this item, 39 items out of 40 remained in the scale. One item (6) that had low variance was excluded from the Loneliness scale. Following the removal of this item, 14 items out of 15 remained in the scale. The CFA models created for the subscales of Problems with Child and Self, which consisted of six items, Problems with Family, which consisted of four items, and Problems with Others, which consisted of six items, revealed that all items had significant *t* scores and the fit indices indicated a good fit to the data. Hence, no items were removed from these subscales.

In the scoring of CAPI, some of the items belong to more than one subscale. Therefore, when an item is removed from one subscale, if the same item has significant *t* scores in another related subscale, it is kept in that subscale. Consequently, seven items (1, 20, 59,70, 87, 110, and 116) were completely removed from the Inventory. As a result of the CFA analysis, a total number of 153 items that had significant *t* scores remained in the CAPI scale.

The goodness-of-fit indices related to the confirmatory factor analysis of CAPI are shown in Table 1.

As shown in Table 1, the *p*-value was found to be significant ($p < .01$), even though it was not expected to be. According to Çokluk et al. (2014), due to the large size of samples in studies of CFA, a significant *p* value is accepted to be fair. Hence, considering the relatively large sample in the CFA analysis in the context of this study, it is reasonable to accept a significant *p*-value. In addition, in all subscales, as the fit indices of $\chi^2$/df are under 3, root mean square error of approximation (RMSEA) are under 0.08; normed fit index (NFI), non-normed fit index (NNFI), comparative fit index (CFI), incremental fit index (IFI), and goodness-of-fit index

**Table 1.** The Goodness-of-Fit Indices Related to the Confirmatory Factor Analysis of CAPI.

| Index | $\chi^2$ | *df* | $\chi^2/df$ | RMSEA | NFI | NNFI | CFI | IFI | GFI | AGFI |
|---|---|---|---|---|---|---|---|---|---|---|
| Abuse | 6,035.76 | 2,765 | 2.183 | 0.054 | 0.91 | 0.93 | 0.91 | 0.92 | 0.91 | 0.90 |
| Lie | 234.59 | 119 | 1.971 | 0.053 | 0.92 | 0.92 | 0.93 | 0.92 | 0.94 | 0.91 |
| Random response | 151.08 | 90 | 1.679 | 0.044 | 0.94 | 0.93 | 0.93 | 0.91 | 0.95 | 0.94 |
| Inconsistency | 168.77 | 119 | 1.418 | 0.035 | 0.92 | 0.91 | 0.94 | 0.96 | 0.95 | 0.93 |
| Distress | 1,175.38 | 560 | 2.099 | 0.056 | 0.92 | 0.96 | 0.97 | 0.96 | 0.90 | 0.89 |
| Rigidity | 128.66 | 73 | 1.763 | 0.041 | 0.92 | 0.93 | 0.96 | 0.94 | 0.96 | 0.94 |
| Unhappiness | 83.14 | 35 | 2.375 | 0.040 | 0.90 | 0.92 | 0.93 | 0.93 | 0.95 | 0.93 |
| Problem with child and self | 20.44 | 9 | 2.271 | 0.046 | 0.92 | 0.90 | 0.92 | 0.92 | 0.98 | 0.96 |
| Problem with Family | 8.40 | 2 | 4.20 | 0.043 | 0.96 | 0.94 | 0.96 | 0.97 | 0.98 | 0.94 |
| Problems with Others | 13.21 | 9 | 1.468 | 0.039 | 0.95 | 0.96 | 0.97 | 0.97 | 0.97 | 0.96 |
| Ego-Strength | 1,682.53 | 712 | 2.363 | 0.059 | 0.93 | 0.94 | 0.96 | 0.95 | 0.90 | 0.89 |
| Loneliness | 235.76 | 81 | 2.911 | 0.051 | 0.92 | 0.94 | 0.95 | 0.93 | 0.93 | 0.91 |

*Note.* CAPI = Child Abuse Potential Inventory; RMSEA = root mean square error of approximation; NFI = normed fit index; NNFI = non-normed fit index; CFI = comparative fit index; IFI = incremental fit index; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index.

(GFI) are above 0.90; and adjusted goodness-of-fit index (AGFI) are above 0.80, these values indicate perfect fit. The $\chi^2$/df index value was only found to be under 5 for the subscale of Problems with Family (Brown, 2006; Jöroskog & Sörbom, 1993; Kline, 1994, 2005). According to Hair et al. (2006), a $\chi^2$/df value under 5 is considered acceptable depending on the sample size. Resultantly, the fit indices revealed that the acquired CFA model for Abuse consisting of 72 items, Lie consisting of 17 items, Random Response consisting of 15 items, Distress consisting of 17 items, Rigidity consisting of 13 items, Unhappiness consisting of 10 items, Problems with Child and Self consisting of six items, Problems with Family consisting of four items, Problems with Others consisting of six items, and Ego-strength consisting of 39 items showed a good fit to the data.

The Pearson correlation coefficients between the subscales of CAPI are shown in Table 2.

According to the results shown in Table 2, there are significant and moderately positive correlations between all sub-dimensions of CAPI ($p < .01$, $p < .05$). Based on these results, the subdimensions can be summed to calculate the total score.

*Criterion-related validity.* To examine the criterion-related validity, the correlations between CAPI and DASS are examined. DASS has previously been adapted into Arabic. It was chosen as a criterion-related measure as it elaborates similar constructs to CAPI.

The Spearman correlation coefficients between the scores of CAPI and DASS are shown in Table 3.

According to the results presented in Table 3, DASS is significantly and positively correlated with Abuse ($r = .688$, $p < .01$), Random Response ($r = .161$, $p < .01$), Inconsistency ($r = .184$, $p < .01$), Distress ($r = .696$, $p < .01$), Rigidity ($r = .130$, $p < .05$), Unhappiness ($r = .440$, $p < .01$), Problems with Child and Self ($r = .321$, $p < .01$), Problems with Family ($r = .380$, $p < .01$), Problems with Others ($r = .505$, $p < .01$), and Loneliness ($r = .638$, $p < .01$). In addition, DASS is significantly and negatively correlated with Lie ($r = -.319$, $p < .01$) and Ego-strength ($r = -.716$, $p < .01$).

### *Reliability*

To examine the reliability, Cronbach's alpha reliability coefficients were calculated for each of the 12 subscales and the total of CAPI. The results of the analysis are presented in Table 4.

As shown in Table 4, Cronbach's alpha coefficients of CAPI vary between .753 and .930. Cronbach's alpha coefficient for the CAPI total score is found to be .838.

Resultantly, the Arabic version of CAPI consists of 12 subscales with a total number of 153 items. Table 5 presents the possible minimum, maximum, and total scores for each of the subscales.

As shown in Table 5, the total possible score that can be obtained from the Abuse subscale is 462. The total scores that can be obtained from the other subscales vary between 14 and 259.

## Discussion

In this study, the objective was to adapt the CAPI inventory into Arabic and to evaluate the psychometric aspects of the Arabic version. In terms of the validity study, construct and criterion-related validity analyses were employed. In the construct validity study, CFA was implemented for the 12 scales that form CAPI. The results of the analysis revealed a total of 12 constructs as in the original form of CAPI (Milner et al., 1986, 1988). The Spearman correlation method was employed to evaluate the correlations between the subscales of CAPI. Significant and positive correlations were found among all CAPI subscales. To perform the criterion-related

**Table 2.** Pearson Correlation Coefficients Between the Subscales of CAPI..

| Subscales | Abuse | Lie | Ran. R. | Incon. | Dist. | Rig. | Unhap. | Prob. Ch. Self | Prob. Fam. | Prob. Oth. | Ego-str. | Lone. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Abuse | — | | | | | | | | | | | |
| Lie | −.230** | — | | | | | | | | | | |
| Ran. R. | .113* | .114* | — | | | | | | | | | |
| Incon. | .193** | .117* | .286** | — | | | | | | | | |
| Dist. | .960** | −.293** | .168** | .158** | — | | | | | | | |
| Rig. | .453** | .257** | −.164** | .125* | .334** | — | | | | | | |
| Unhap. | .631** | −.140** | .189** | .168** | .534** | .142** | — | | | | | |
| Prob. Ch. Self | .409** | −.106* | .246** | .184** | .296** | .156** | .307** | — | | | | |
| Prob. Fam. | .564** | −.155** | .195** | .151** | .442** | .122* | .364** | .317** | — | | | |
| Prob. Oth. | .663** | −.255** | .118* | .158** | .651** | .187** | .336** | .162** | .321** | — | | |
| Ego-str. | −.946** | .345** | −.119* | −.179** | −.963** | −.319** | −.540** | −.312** | −.452** | −.727** | — | |
| Lone. | .868** | −.316** | .122* | .127* | .885** | .268** | .513** | .275** | .410** | .721** | −.922** | — |

*Note.* CAPI = Child Abuse Potential Inventory; Ran. R. = Random response; Incon. = Inconsistency; Dist. = Distress; Rig. = Rigidity; Unhap. = Unhappiness; Prob. Ch. Self = Problems with child and self; Prob. Fam. = Problems with family; Prob. Oth. = Problems with others; Ego-str. = Ego-strength; Lone. = Loneliness.
*$p < .05$. **$p < .01$.

**Table 3.** The Spearman Correlation Coefficients Between the Scores of CAPI and DASS..

| | CAPI | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Scale | Abuse | Lie | Ran. R. | Incon. | Dist. | Rig. | Unhap. | Prob. Ch. Self | Prob. Fam. | Prob. Oth. | Ego-str. | Lone. |
| DASS | .688** | −.319** | .161** | .184** | .696** | .130* | .440** | .321** | .380** | .505** | −.716** | .638** |

*Note.* CAPI = Child Abuse Potential Inventory; DASS = Depression, Anxiety, Stress scale; Ran. R. = Random response; Incon. = Inconsistency; Dist. = Distress; Rig. = Rigidity; Unhap. = Unhappiness; Prob. Ch. Self = Problems with child and self; Prob. Fam. = Problems with family; Prob. Oth. = Problems from others; Ego-str. = Ego-strength; Lone. = Loneliness.
*$p < .05$. **$p < .01$.

validity, DASS was implemented. The results of the analysis revealed significant correlations between DASS and all subscale scores of CAPI. It is thought that parents who suffer from negative emotions such as anxiety, depression, or stress are more likely to have higher child abuse potential. In general, these results provide statistical proof for the construct and the criterion-related validity of the CAPI scale. In terms of reliability, Cronbach's alpha reliability coefficients were calculated. Cronbach's alpha coefficient typically varies between 0 and 1. Internal consistency is considered to be stronger when the reliability coefficient is closer to 1. George and Mallery (2003) suggested that a Cronbach's alpha coefficient above 0.7 shows good internal consistency. In this study, the reliability coefficients for each of the subscales were found to be high, with all values above 0.7. In addition, the reliability coefficient for the total score was computed as .838, which is close to Cronbach's alpha coefficient of .93 reported by Milner (1994).

Milner's original form of CAPI has been translated into many other languages and numerous studies have reported on the reliability and the validity analysis of translated versions of CAPI. With regard to the Greek adaptation of CAPI (Diareme et al., 1997), the validity analysis revealed that this version of the scale exhibited strong similarities to the original version; in particular, the Greek version contained the basic subdimensions of psychological difficulties in addition to unrealistic expectations from children and interpersonal problems. The internal consistency reliability coefficient for the Abuse scale was calculated as .91. Similar to the Greek version, validation of the Italian version of CAPI conducted by Miragoli et al. (2015) on a non-clinical sample showed a factorial structure that was consistent with the original version. The factor analysis revealed a total of six descriptive factors (Rigidity, Distress, Unhappiness, Problems With Child and Self, Problems With Others, and Problems With Family), in addition to the Abuse subscale, which is comparable with the factor structure suggested by Milner et al. (1986). In the study, the internal consistency coefficient of the Italian CAPI was found to be .87. Another version that showed a similar factorial structure to the original version was the Finnish adaptation of the scale. In the study conducted by Ellonen et al. (2017) involving a

**Table 4.** The Internal Consistency Coefficients of CAPI.

| CAPI | Cronbach's alpha |
|---|---|
| Abuse | .912 |
| Lie | .778 |
| Random Response | .753 |
| Inconsistency | .826 |
| Distress | .884 |
| Rigidity | .787 |
| Unhappiness | .831 |
| Problems with Child and Self | .823 |
| Problems with Family | .857 |
| Problems with Others | .886 |
| Ego-strength | .930 |
| Loneliness | .788 |
| Total | .838 |

*Note.* CAPI = Child Abuse Potential Inventory.

**Table 5.** The Scores of the Arabic Version of CAPI.

| Scale | Total possible score |
|---|---|
| Abuse | 462 |
| Lie | 17 |
| Random Response | 15 |
| Inconsistency | 17 |
| Distress | 259 |
| Rigidity | 60 |
| Unhappiness | 56 |
| Problems with Child and Self | 30 |
| Problems with Family | 38 |
| Problems with Others | 24 |
| Ego-Strength | 39 |
| Loneliness | 14 |

*Note.* CAPI = Child Abuse Potential Inventory.

population comprising Finnish families who were expecting a baby at maternity and child welfare clinics, the analysis revealed a five-factor model consisting of distress, unhappiness and problems with other people, depression, problems with child and self, and rigid discipline. The internal consistency coefficients of the abuse scale varied between .80 and .85. On the other hand, in a study on the Arabic/Omani adaptation of CAPI conducted by Al Abduwani (2018), the six-factor structure of the original version was not confirmed as the construct analysis revealed a three-factor model. Cronbach's alpha coefficient of the Omani version was found to be .91. In the meta-analysis conducted by Milner and Crouch (2012), in which the psychometric characteristics of translated versions of CAPI were examined, it was found that the Chinese, Spanish (Mexico), and the Spanish (Chile) versions of CAPI showed six descriptive factors that were similar to the original version of the inventory. In the study, it was also determined that the internal consistency coefficients were .88 for the general population and .91 for the clinical sample across all translations examined. It is thought that the psychometric characteristics of the Arabic/Lebanese version of CAPI are similar to the aforementioned translated versions, which confirmed the factorial structure of the six descriptive dimensions of the original version, rather than the Arabic/Omani version. The difference between the two Arabic versions might be due to the fact that the results of the Lebanese version were based on a general population, whereas the Omani version was conducted on a sample of pregnant women, in addition to possible cultural differences between the two communities.

Another version of CAPI that exhibits similar characteristics to the Lebanese version is the Turkish version of CAPI. The Turkish CAPI, including the abuse and descriptive dimensions, has a similar factorial structure to the original one (Öner & Sucuoğlu, 1994). In another study conducted by Kutsal et al. (2011) in which the validity of the Turkish version of CAPI was examined, discriminant analysis was performed to assess whether the cut-off point of the abuse scale could predict non-abuser and abuser groups. Kutsal et al. (2011) accepted 200.5 as the cut-off score, which was the average of the Turkish population. The results of the analysis revealed that the abuse scale correctly classified 78.8% of the participants in the non-abuser group and 83% of the participants in the abuser group. In the meta-analysis study conducted by Milner and Crouch (2012), it was found that the classification rates of the translated versions of CAPI based on the cut-off scores (166 and 215) suggested for the original version varied between 70% and 90%. However, it should be noted that the findings of this study were based on the general population and did not involve any comparison group from a clinical sample. Hence, it is not possible to draw any conclusions regarding the classification rates nor the potential for the CAPI to be used as a screening tool in terms of the classification rates in this Lebanese sample. Further norm studies need to be conducted in order for the Arabic/Lebanese version of CAPI to be implemented as a clinical measure with cut-off scores and classification rates suitable for a Lebanese sample. On the other hand, CAPI encompasses three validity scales, which are the lie scale, the random response scale, and the inconsistency scale (Milner & Ayoub, 1980). While evaluating the scores, the cut-off scores for each of the validity scales should be employed and the abuse scores should be interpreted after making necessary adjustments according to the validity scales. However, Milner and Crouch (2012) suggested that the classification rates of CAPI improve only slightly when these scales are used for classification purposes in translated versions of the abuse scale. Hence, they suggested that the U.S. norms, particularly for the Lie Scale, may not be suitable for use with other versions. In this study, no adjustments were made to the abuse or descriptive scales. Hence, the findings related to the validity scales should be considered on a preliminary basis and need to be confirmed through a validation study on a separate sample.

In this study, it has been revealed that the findings correspond to the original form, thus verifying the usefulness of the Arabic version of CAPI. Therefore, it is thought that the Arabic/Lebanese version of CAPI can be considered a valid and reliable instrument that can be employed professionally in Lebanon for the early screening and detection of child abuse potential, which in turn will be beneficial for the early intervention and protection of children who are at risk of being abused. This study is a cultural adaptation of CAPI for Lebanese society. Different countries that show similarities to Lebanese culture and use the Arabic language may also benefit from the Arabic/Lebanese adaptation. To the best of the researchers' knowledge, this is the first instrument of its kind that offers the means to assess child abuse potential in Arabic society. Nevertheless, there are several limitations of the study that need to be addressed. This research was limited to the unique structure, values, and socio-demographic composition of caregivers in Lebanese society. A larger sample composed by considering the age and gender of the participants would have enabled more accurate generalization to the rest of Lebanese society. It was also observed that the process of administering the surveys was challenging, particularly for male parents, because the majority of parents in Lebanon still hold the belief that child rearing is the mother's responsibility. Some caregivers refused to complete the survey because of the perception that it contained a large number of questions, which consequently made it difficult to collect the required volume of data. Considering the unique nature of Lebanese society, further studies should be conducted in other Arabic countries to form a better understanding of various Arabic cultures and their effect on the concept of child abuse potential. However, it is thought that it would also be beneficial to conduct norm standardization studies in the future and to validate the cut-off score for the Arabic/Lebanese version of CAPI. According to Lebanese laws, the definition of child abuse is unclear as it is based on the degree of harm inflicted and the social values that prevail within Lebanese society. However, Lebanon and the Arabic region in general lack any form of scale or screening tool that can detect child abuse or child abuse potential. Hence, the Arabic version of CAPI provides a valuable instrument to assess child abuse potential in Arabic-speaking countries.

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## Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

## Informed consent

Informed consent was obtained from all individual participants included in the study.

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