Children's Trust in Social Workers: Scale
Development and Relations to Children's Engagement with Social Workers
RUNNING HEAD: CHILDREN'S TRUST IN SOCIAL WORKERS

Abstract

The present research aimed to develop the Children's Trust in General Social Workers (CTGSW) scale. Psychometric properties, structural validity, construct and concurrent validity of the scale were evaluated. Both linear and quadratic patterns between children's trust beliefs in social workers and their engagement with social workers were examined. A sample of 112 Italian vulnerable children (M = 11.4 years, SD = 1 month) were administered the Italian-Children's Generalized Trust Beliefs scale, the CTGSW scale, and a measure of engagement with social workers. The CTGSW scale demonstrated the expected: (a) structure validity; (b) acceptable psychometric properties; (c) construct validity by correlations with trust in significant others; and (d) concurrent validity by associations with children's engagement with social workers. Reliability and honesty bases of trust in social workers were associated with engagement with social workers. In comparison to the middle range, children who held very low trust in social workers demonstrated very low quality of relation with social workers. The pattern was asymmetrical. Children who held high trust beliefs in social workers demonstrated a modest decrease in quality of relation with social workers. The findings demonstrated validity and utility of the CTGSW and yielded support for the Basis, Domain, and Target Framework.

Key Words: Trust in Social Workers; BDT Trust Framework; Social Workers; Children;

Trust Beliefs; Engagement

Children's Trust in Social Workers: Scale

Development and Relations to Children's Engagement with Social Workers

Children's trust in others has been regarded as the cornerstone of their interpersonal relationships and social functioning (Rotenberg, 2010). Cross-sectional associations were found with perspective taking ability (Lecciso, Petrocchi, Sempio, & Marchetti, 2011; Rotenberg, Petrocchi, Lecciso, Marchetti, 2015) and longitudinal with low aggression (Malti et al., 2013), high prosocial behavior (Malti et al., 2015), and low loneliness (Rotenberg et al., 2004). Researchers have studied children's trust beliefs in a range of significant others from their immediate social environment (Rotenberg et al., 2005; Betts, Rotenberg, Trueman, 2009), such as mother, father, teachers, peers, and from their distal social environment (Rotenberg et al., 2008; Rotenberg, Woods, & Betts, 2015), such as health professionals. Nonetheless, research has ignored examining children's trust in social workers who may play a crucial role in their lives and the current study was intended to redress that oversight. The current study aimed to develop a viable scale to assess children's trust beliefs in social workers and evaluate its psychometric, validity, and utility properties.

The Interpersonal Trust Framework

The construction of the scale, and the hypotheses of the present study, was guided by the Basis, Domain, and Target interpersonal trust framework (BDT; Rotenberg, 2010; Rotenberg et al., 2010; Rotenberg, Petrocchi, Lecciso, & Marchetti, 2013). The BDT specifies that trust comprises three Bases (reliability, emotional, honesty), three Domains (cognitive/affective, behavior-dependent, behavior-enacting) and two Target dimensions (familiarity, specificity). The present research considered, in particular, the three bases, the cognitive/affective domain, and the two target dimensions.

The three bases of trust are: (a) reliability, comprising fulfilment of words or

promises, (b) emotional, comprising refraining from causing emotional harm and maintaining confidentiality, (c) honesty, comprising telling the truth and engaging in behavior guided by benevolent rather than malevolent intention. The cognitive/affective domain comprises children's beliefs/affects that other people demonstrate the three bases of trust. The familiarity of the target ranges from slightly familiar to highly familiar and the specificity ranges from general category to a specific person.

The BDT framework further emphasizes that interpersonal trust is the result of reciprocity between individuals, notably in dyadic interaction (see Betts et al., 2014), that results in establishing a common social history with significant others. From these social common histories, comprising reciprocal fulfilment of promises, refrain from causing emotional harm, and maintaining confidentiality, a unique level of trust towards various targets has established (Rotenberg, 2010).

The BDT has served as the basis for developing several age-appropriate scales measuring trust in others from the immediate social environment (Betts, Rotenberg, Trueman, 2009; Randall, Rotenberg, Totenhagen, Rock, Harmon, 2010; Rotenberg et al., 2005) and from the distal social environment (Rotenberg et al., 2008; Rotenberg, Woods, & Betts, 2015). From the immediate social environment, the Children's Generalized Trust Beliefs scale (CGTB; Rotenberg et al., 2005) was developed for children aged 8 to 10 years old and assesses trust beliefs in general figure of mother, father, teachers, and peers. That scale is composed of the expected three-factor/basis structure (reliability, emotional, honesty) and demonstrated acceptable psychometric properties. As evidence of validity and cultural stability of the BDT framework, the CGTB was also translated and validated into Italian (ICGTB; Rotenberg, Petrocchi, Lecciso, & Marchetti, 2015) demonstrating the expected three-factor structure and association, notably the emotional basis of trust, with children's social functioning (i.e., perspective taking ability).

From the distal social environment, the Children's Trust in General Physicians scale

(CTGPS; Rotenberg et al., 2008) and the Children's Trust in General Nurses Scale (CTGNS; Rotenberg, Woods, & Betts, 2015) were developed to measure respectively children's trust beliefs in physicians and in nurses. Both scales showed the expected three-factor structure, acceptable internal consistency, and validity. For both scales, trust in general figure of physicians/nurses was measured because children receive medical treatment from a variety of health professionals rather than a specific person.

Trust in Social Workers

The mandatory character of the social service actions, especially within child protection services (CPS), is one main feature that often challenge the development of trusting relationships between clients and social workers. The quality of interactions between social worker and parents has considered a key factor to predict the strength of family involvement into the intervention, family service completion (Girvin et al., 2007; Killian et al., 2015; Korfmacher et al., 2007), and positive outcomes (Lee & Ayon, 2004; Munro, 2011). A helping relation is characterized by mutual respect, acceptance, and trust (Lambert & Ogles, 2004; McCurdy & Jones, 2000; Orlinsky et al., 2004). Winefield & Barlow (1995) argued that since parents, under welfare control, are often emotionally damaged and neglectful towards their children, building a trusting relation is a necessary condition for their change.

Building trusting relationships with social workers is important also for children under CPS. Hafford-Letchfield & Spatcher (2007) assumed that children's trust beliefs in school social workers play a crucial role in their psychosocial adjustment and are essential for the success of social work with children and their families. A qualitative research (McLeod, 2010) found that young people's ideal social worker should be a trustworthy, reliable (i.e., who maintain words and promises, corresponding to the reliability basis of trust), and honesty person (i.e., who tell the truth, corresponding to the

honesty basis of trust). A good relation with social workers exposes children to the possibility to be honest and to cooperate, as found for adults (Drake, 1994). Building trusting relationships is also a crucial factor for the effectiveness of social workers advocacy. It is under a mutual trusting and respectful relation that social workers can present themselves as helping agent willing to assist the family and to engage them into the process (Drake, 1994).

Although these investigations are valuable, they did not directly measure children's trust in social worker. It also should be noted that systematic reviews (Ofsted, 2011; Winter, 2011; Munro, 2010, 2011a, 2011b) indicated that the child's point of view is not often considered in research on social work practice with an over-representation of parents' point of view (e.g., Killian Forrester, Westlake & Antonopoulou, 2015). The few research involving children did not study their trust in social worker (e.g., Winter et al., 2016; Mundy, Neufeld & Wells, 2016).

The aim of the present study was to develop the Children's Trust in General Social Workers (CTGSW) scale based on the similar Rotenberg end colleagues (2008) and Rotenberg, Woods, and Betts (2015) scales measuring trust beliefs in health professionals. Although other scales measuring trust within interpersonal relations are available for both adults (e.g., Larzelere & Huston, 1980) and children (e.g., Rotenberg et al., 2005), they are focused on different interpersonal settings than relations with professionals such as social workers.

The development of the CTGSW is located within the wider debate regarding the use of well-validated measures in social worker research (see Dennison, 2002) to assess clients' psychosocial functioning and evaluate practice (Bloom, Fischer & Orme, 2009; Jordon & Franklin, 1992; Royse & Thyer, 2009). The context in which children meet social workers is the Children Protection Service of the Italian Social Service. Although the scale was developed in that context, we have worded the scale items to pertain to a

range of interactions – hence the term "general" in the CGTSW. The term general was used because we did not ask children to rate a given social worker.

The CTGSW evaluates the cognitive/affective domain of trust across the three bases (reliability, emotional, honesty) towards a general social worker. The scale was developed for children from eight to 14 years old without mental health problems and was referred to social workers working on in-home or out-of-home placements. Within the social workers' duties, the most important are that they should be responsible for conducting home visits with both adults and children, taking care of family needs and formulating service plans.

Areas investigated

The BDT posits that generalized trust reflects a defined set of beliefs about others and the propensity to accept own vulnerability and risk in social situations based on positive expectations about others' behaviors (Rotenberg, 2010). Those trust beliefs origin from their very first interactions within family members and then are generalize to others (Rotter, 1967, 1971) as a unique level of trust (Rotenberg, 2010). In that vein, it was expected to find significant associations between children's generalized trust beliefs in a range of significant others from immediate social environment (mother, father, teachers, and peers) and children's trust beliefs in general social workers. This would be a demonstration of the validity of the principles of the BDT framework and of the construct validity of the CTGSW.

Based on the reciprocity principle, the BDT framework posits that trust has an intrinsic reciprocal quality whereby an individual's trust towards his/her partner tends to be reciprocated by the partner of the dyad (Rotenberg, 2010). The BDT suggests that interpersonal trust comprises a set of beliefs or expectations that other persons fulfil words and promises, maintain confidentiality of personal disclosures, and tell the truth.

Based on these beliefs and expectations, individuals behaviorally relying on others to act in a trusting manner and behaviorally engage in the three bases of trust. Others then reciprocate trusting beliefs and behaviors. Consequently, in CPS, dyadic reciprocity corresponds to the extent to which children's trust in social workers, behaviorally relying on social workers to act trustfully, and behaviorally engage in the three bases of trust with social workers. As a result, children's trust beliefs and behaviors tend to be reciprocated by social workers and a common social history between them is built.

Reciprocal trust exposes partners to good quality relations. Research has found positive association between children's trust beliefs, number of friends and continuity over time of friendship (Rotenberg et al., 2004), and negative relations between children's trust beliefs and loneliness (Rotenberg et al., 2010). Also, it has been found that children's trust in physicians is associated with their adherence to prescribed medical regimes (Rotenberg et al., 2008) and children's trust beliefs in nurses is associated with frequency of interactions with nurses as assessed by visits to medical centers (Rotenberg, Woods, & Betts, 2015).

In that vein, positive significant association between CTGSW and children's engagement with social workers was expected because the reciprocal dyadic interactions based on trust between children and social workers. The associations between CTGSW and children's engagement with social workers would be a further demonstration of the validity of the principles of the BDT framework and a demonstration of the utility and concurrent validity of the CTGSW.

A qualitative research (McLeod, 2010) found that, according to children and adolescents, keeping promises and telling the truth are two ideal characteristics of social workers. Although promising, this study did not measure children's trust in social workers. The present research intends to fill the gap and positive associations were expected between reliability (i.e., keeping promises) and honesty (i.e., telling the truth)

bases of trust and engagement with social worker. The association between keeping secrets (i.e., the emotional basis of trust) and engagement with social workers is more unpredictable. On the one hand, sharing personal information should positively qualify the relation between clients and social workers. On the other hand, CPS social worker is required to refer every particular information that can be considered important for the case. The awareness of this requirement could refrain children to share their secrets and personal information. In this vein, the emotional basis of trust could be less likely associated with engagement than the reliability and honesty bases.

Based on the BDT model, it was expected that the more children trust their social worker the more they experience good quality of relation with social workers. There are reasons, however, to believe that the relation between children's trust in social workers and their quality of their relations would conform to a curvilinear pattern. Previous research (Rotenberg et al., 2005) have established that children who hold very low and very high trust in peers showed low quality of relations with them. Very low and very high trust beliefs are considered a deviation from social norms. Who hold very low trust beliefs in others shows a cynical orientation towards others, while who hold very high trust beliefs in others shows a naïve orientation towards others. Based on these results, it was expected that children's trust beliefs in social workers would show quadratic relation to their engagement because it represents a deviation from social norms.

Finally, since research has reported that girls demonstrate greater trust than boys do (Betts & Rotenberg, 2007; Rotenberg, Petrocchi, Lecciso, & Marchetti, 2015), we examined whether the observed patterns were moderated by gender.

Hypotheses

It was expected that the CTGSW scale would: (a) demonstrate the expected three-factor structure (reliability, emotional, honesty); (b) show acceptable psychometric

properties (i.e., consistency); (c) show construct validity by its relations with corresponding bases of generalized trust in significant others from immediate social environment; (d) demonstrate concurrent validity by correlations with measure of engagement with social workers (child-reported). It would also expected to find positive associations between reliability and honesty bases of trust and engagement with social worker. The relation between emotional basis of trust and engagement would be examined but no hypothesis was drawn. It would also expected to find significant quadratic relations between trust in social workers and engagement with social workers. Finally, it was analyzed whether the observed patterns were moderated by gender.

Method

Participants

The participants were 112 Italian children (67 boys; M=11.4 years, SD=1 month; range 8-14 years). Ninety-nine children lived with their natural family, 13 lived with short-term foster care families. Family size varied from 2-9 members with a mean of 4.30 (SD=1.5). Children were Italian citizens with European White background and were enrolled in public schools serving low and middle class neighborhoods in southern Italy.

The Italian Child Protection Service took charge of children and families under the order of the Juvenile Court. All the social workers worked within the local council authorities. Twenty-two social workers (all female) were assigned to the children and their families with a mean ratio of 1 (social worker): 5 (children) (range 1-15, SD = 3.38). Social workers reported being qualified for an average of 17.15 years (range 1-35, SD = 10.92) and being in a permanent position. At the time of recruitment, length of support by the social service for each family ranged from 4 months to 12 years and 6 months (M = 1.5).

3.9 years; SD = 3 months).

Mothers' age ranged from 25 to 62 years (M = 40.5 years, SD = 7 months) and fathers' age from 27 to 66 years (M = 45.9 years, SD = 10 months). Mothers' educational level averaged 8.8 years (SD = 3.03) corresponding to Junior High/Secondary School. Fifteen mothers were unmarried, 53 married, 41 divorced, and 3 widowed. Sixty-one mothers were housewives, 42 employed for wages, 4 unemployed, 3 retired, and 2 self-employed. Fathers' educational level averaged 8.07 years (SD = 2.66); 79 were employed for wages, 20 unemployed, 3 retired, 2 self-employed, and 8 participants did not share information about their profession.

Measures

Trust in Social Worker. The Children's Trust in General Social Worker (CTGSW) scale was created for this study. SP and FL generated 18 items in consultation with a social worker who was not involved in the participants' recruitment. The items described interactions between a child (same gender of the participant) and a social worker who behaved through the three bases of trust (reliability, emotional, honesty). Participants provided the answers on a five-point Likert scale from 1 (very unlikely) to 5 (very likely).

The following items are examples of those used in the CTGSW for males and with basis of trust between brackets:

- 1. His social worker removed Carlo from his family. The social worker said that she will give her positive opinion to allow Carlo go back home for few days. How likely is it that the social worker will give her positive opinion? (Reliability)
- 2. One day at school, a Mirco's classmate read a story about vampires. While the classmate was reading, Mirco went out the class without asking for teacher's permission. Mirco told the social worker he was worried about vampires and asked the social workers not to tell anyone. How likely is it that the social worker

- will not tell anything to anyone? (Emotional)
- 3. The social worker told Francesco they would meet one week later. The day of the meeting, the social worker called Francesco to say she cannot meet him because she has fever. How likely it is the social worker has fever? (Honesty)

Means for the three bases of trust were calculated with higher scores denoting greater trust in social worker.

Trust in Significant Others. The Italian Children's Generalized Trust Beliefs scale (ICGTB; Rotenberg, Petrocchi, Lecciso, & Marchetti, 2015) was administered to measure generalized trust in a range of significant others from immediate social environment. Twenty-four items described short stories with a child (same gender of the participant) and his/her mother (or father, or teacher, or peers) as protagonists. Participants imagined being protagonist of each story and judged accordingly if the target character keeps promises (reliability), fulfils confidentiality and avoids criticism and embarrassing (emotional), and tells the truth (honesty). Children provided the answers on a Likert five-point scale from 1 (very unlikely) to 5 (very likely). Means for the three bases of trust (reliability, emotional, honesty) were calculated with higher scores denoting greater trust.

Rotenberg et al. (2015) and Rotenberg et al., (2005) showed evidence for internal consistency and confirmatory factorial structure. The original study of the English version of the CGTB (Rotenberg et al, 2005) reported α = .76 for the whole scale, α = .67 for reliability, α = .62 for emotional, and α = .65 for honesty. The Italian version of the CGTB (i.e., ICGTB; Rotenberg et al., 2015) reported α = .83 for the whole ICGTB scale, .80 for the reliability basis, .85 for the emotional, and .82 for the honesty basis. In the current study, the ICGTB scale demonstrated acceptable internal consistency (α = .83, rs > .30), as did for the three bases subscales: α = .66, rs > .33 (reliability), α = .71, rs > .32 (emotional), and α = .68, rs > .21 (honesty). The present study shows evidence of reliability placed between those of the original English version of the scale and those of

the first Italian version. That is demonstration of consistency among different samples/languages and gives evidence of stability of the measure.

Children's Engagement with Social Workers. In order to measure how children perceived the relation with social worker as comforting, confident, worthwhile, and useful, several items from the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989) were selected. The WAI is a widely studied measure of the quality of relation between patients and therapists in psychotherapy settings (see Martin et al., 2000). Recently, it has been administered in a sample of adults accessing social services (Guedeney et al., 2005) and it has been validated in a sample of parents and social workers within CPS (Killian et al., 2015).

Six items of the WAI were selected following these criteria: 1) the items should measure comfortableness, confidence, worthwhileness, and usefulness of the relation with social workers, from the children's point of view; 2) children should be able to understand and reply to them. The six items were: 1) "My relation with my social worker is very important for me", 2) "I and my social worker understand each other", 3) "I think my social worker likes me", 4) "My social worker is really preoccupied for my good", 5) "My social worker takes care of me", and 6) "I trust my social worker's capability to help me". Participants provided their evaluation on a seven-point Likert scale from 1 (never) to 7 (always). Scores were averaged with higher scores denoting greater children's engagement with social worker. The final score demonstrated acceptable internal consistency, $\alpha = .87$, rs > .47.

A pilot study was carried out on 10 children aged 10 years old; they judged the six items as clear and understandable.

Procedure

Participants were administered the scales and ratings in one session, in a quiet room

at their local social service in the presence of a female research assistant. Parents and social workers were not present during the administration. Before administering the questionnaires, we secured that every children were able to identify the social worker who was working with them. Standardized instructions encouraged participants to give honest answers highlighting the confidentiality of their answers. They were told that it was not a test and there were no right or wrong answers. Children's participation was secured by parental signed consent as recommended by APA ethics guidelines.

Results

Statistical Procedures

All the items of the scales were normalized through reverse score and logarithmic transformation. There were no missing data. The CTGSW was developed to tap the three bases of the BDT interpersonal trust framework through the following steps: 1) item analysis; 2) exploratory factor analysis (EFA); 3) confirmatory factor analysis (CFA).

First, the 18 items of the CTGSW were subjected to an item analysis and items with low inter-item correlations (< .20) were removed. Second, the remained items were subjected to an exploratory factor analysis (EFA) with oblimin rotation due to the expected correlations among bases of trust. From the initial three-factor model, items with low factor loadings (< .30) or items loaded equally on two factors were rejected, then a the final EFA was performed. SPSS 23.0 software was used for the analyses.

Third, the final set of items of the CTGSW scale were subjected to a confirmatory factor analysis (CFA) using Structural Equation Modelling (SEM). The 12 items comprised 4 items assessing the same basis of trust beliefs (reliability, emotional, honesty). The model was entered and an initial solution obtained. The largest covariance between error terms on the same factor was added, but only with a modification index value greater than $\chi^2 > 8.52$ (p < .05) indicating a significant improvement in model fit.

The process was repeated one time. The χ^2 , the comparative fit index (CFI), and the root mean error of approximation (RMSEA) were used to assess the fit of the data with the model. The χ^2 tests an exact-fit hypothesis assuming little difference between model and population covariances (Kline, 2001) and the values should be non-significant. The CFI compares model fit to that of a baseline model and values greater than or equal to 0.95 indicate acceptable model fit (Byrne, 2010). The RMSEA evaluates how close the model covariance matrix is to that of the observed covariances. Values lower than .08 are indicative of adequate fit (Byrne, 2010). Maximum likelihood estimation method was conducted through AMOS 24.0 software.

Factorial structure and psychometric properties of the CTGSW

After the reliability analysis, one item was removed from the scale because showed low inter-item correlation. The 17 remained items were subjected to the EFA. The initial analysis yielded the expected three-factor structure (reliability, emotional, and honesty), but one reliability item, two emotional and two honesty items were rejected. The final EFA was performed with the remaining 12 items (4 per each basis) and yielded the expected three-factor solution accounting for 48% of the variance (KMO = .76) and with factor loadings above .40 (Child, 1990 recommended values above .30).

The CFA tested the three-factor structure (reliability, emotional, honesty) with the selected 12 items. Figure 1 shows the final model. The model showed good fit of the data with non-significant χ^2 (50) = 60.05, p = .16, CFI (comparative fit index) = .97, RMSEA (root mean square error of approximation) = .04 (LO 90 = .00; HI 90 = .07). The standardized regression weights for the three bases and covariances between them attained significance at p <.05. There was a positive covariance between error 9 and error 12. The three-factor model was a better fit than a randomly chosen two-factor model, $\Delta \chi^2$ (2) = 132.42, p < .0001, and the one-factor model, $\Delta \chi^2$ (3) = 135.77, p < .0001. Both

the two-factor model and the one-factor model were tested with and without errors covariance.

Given the low number of items, the scale as a whole demonstrated acceptable internal consistency (α = .77, rs. > .28), as did for the three bases subscales: α = .68, rs > .35 (reliability), α = .68, rs > .25 (emotional), and α = .71, rs > .42 (honesty).

Insert Figure 1 approx. here

Correlations among Measures

Table 1 shows correlations between the CTGSW, the ICGTB, and the measure of children's engagement with social workers. As expected, each scale of the CTGSW, namely reliability, emotional, and honesty, was correlated with the corresponding scale of the ICGTB. There were also appreciable correlations between: (a) the reliability scale of the CTGSW and emotional and honesty scales of the ICGTB; (b) the emotional and honesty scales of the CTGSW and reliability scale of the ICGTB; and (c) the honesty scales of the CTGSW and emotional scale of the ICGTB. There were appreciable internal correlations between all the three scales of the CTGSW. There were appreciable internal correlations also between each of the three scales of the ICGTB. There were significant correlations (one-tailed) between the three bases of the CTGSW and children's engagement with social workers.

Insert table 1 approx here

A regression analysis was carried out to examine whether the three bases of children's trust in general social workers were significant predictors of the engagement with social workers. The model was significant, $F(3\ 108) = 19.13$, p < .0001, $R^2 = .35$, $R^2_{adj} = .33$. Table 1 shows results for the three bases of trust in social worker.

Insert table 2 approx here

A second regression analysis was carried out to determine whether the relation between trust in social workers and engagement with social workers was linear or curvilinear. Both linear and curvilinear regressions were significant. The regression analysis was significant, $F(2\ 109) = 30.93$, p < .0001, $(R^2 = .36; R^2_{adj} = .35)$. For ANOVA with the only linear path: $R^2 = .32$; $R^2_{adj} = .32$) and yielded both linear and quadratic effects of children's trust in social workers on engagement with social workers (See Table 2). The pattern was asymmetrical (Figure 2). In comparison to the middle range (M = 3.5), children who held very low trust in social workers demonstrated very low confidence in social workers. Participants who held high trust beliefs in social workers demonstrated a modest decrease in confidence in social workers.

Insert Figure 2 approx. here

_ _ _ _ _

Gender differences

Individual t-tests on the measures showed that there were gender differences in reliability trust in social workers, t(110) = -2.02, p = .046, in emotional trust in social workers, t(110) = -2.18, p = .031, and in general trust in social workers, t(110) = -2.36, p = .020. As expected, girls showed greater trust in social workers than boys did (see Table 1 for means and SD). No other gender differences were found in children's engagement with social workers.

Hierarchical regression analyses (HRAs) were carried out to examine whether gender moderated the observed linear and quadratic relations. Continuous variables were centered and gender, serving as potential moderating variable, was dummy coded. In the first HRA, the predictors were: (Step 1) children's trust in social workers, (Step 2) gender and (Step 3) children's trust in social workers * gender term (see Cohen et al., 2003). In the second HRA, the predictors were: (Step 1) children's trust in social workers, (Step 2) gender and children's trust in social workers-squared term and (Step 3) children's trust in social workers-squared term. The HRAs did not yielded any significant predictors * gender interactions for the dependent measure. Therefore, gender was not found to moderate the observed relations.

Discussion

The aim of the present study was to develop a viable scale to measure trust beliefs in general social worker. As expected, the scale demonstrated acceptable psychometric properties and structure validity. As expected based on BDT principles, the Children's Trust in General Social Workers (CTGSW) evaluates the cognitive/affective domain of trust across the three bases (reliability, emotional, honesty) towards a general figure of social worker. The CTGSW scale demonstrated structural validity by its three-factor structure (reliability, emotional, honesty). It showed also acceptable internal consistency, given the limited number of items, with results similar to the other scales

measuring trust in significant others from immediate and distal social environments (Randall et al., 2010; Rotenberg et al., 2005; Rotenberg et al., 2013; Rotenberg et al., 2015; Rotenberg et al., 2008; Rotenberg, Woods, & Betts, 2015).

The CTGSW scale demonstrated construct validity by its correlations with the corresponding scales of the ICGTB, which evaluates generalized trust beliefs in a variety of significant others (mother, father, teachers, peers). Those correlations were expected because the principle that children learn to trust others from their first interactions with family members and then generalize trust to others (Rotter, 1967, 1971) as a unique and relatively stable level of trust (Rotenberg, 2010). According to the BDT, our results demonstrated that generalized trust reflects a defined set of beliefs about others, from immediate and distal social environments (Rotenberg, 2010).

The CTGSW demonstrated also concurrent validity by its correlations with engagement with social workers. Those correlations were expected under the reciprocity principle of the BDT framework, which posits that social workers and children establish a common social history in which children's trust in their social workers tends to be reciprocated by them. According to the BDT framework (Rotenberg, 2010), children's trust beliefs in social workers increase the likelihood that they engage in collaborative behaviors which are reciprocated by social worker.

As a demonstration of the utility of the CTGSW, positive association were found between reliability and honesty bases of trust and children's engagement with social workers. Those results confirmed the principle of the BDT, which posits that quality of relations between partners depends on beliefs that the other fulfill words and promises (i.e. reliability basis of trust), tell the truth and behave honestly (i.e., honesty basis of trust). Our results extended the qualitative findings by McLeod (2010) measuring children's trust in social workers and demonstrating that those beliefs play a role in children's engagement.

It seems that children's beliefs that social workers would not share personal information with others (i.e., the emotional basis of trust) did not qualify children's engagement. Social workers' code of conduct required them to be reliable and honest with clients, but, in the same time, ask them to report every information that can be considered important for the case, especially when mandated by law. Given the mean of length of support received by the social service was 3 years-9 months, it is reasonable to hypothesize that children, in our study, could be aware of this requirement. In this vein, keeping secrets and confidence could be a less important aspect of the children's trust beliefs in social workers because the expectation that social workers share information with other colleagues about their case. Thus, the engagement with social workers is not influenced by social workers' capability or incapability to maintain secrets, but by those aspects (being reliable and honest) that a social worker has to respect.

Finally, based on the BDT Model and previous research on peer relationships (Rotenberg 2010; Rotenberg et al., 2005) a quadratic patter was found between children's trust in and their engagement with social workers. The pattern was asymmetrical. Children who held very low trust in social workers demonstrated very low engagement in social workers. Participants who held very high trust beliefs in social workers demonstrated a modest decrease in engagement in social workers. Our results extended Rotenberg and colleagues' findings (2005) demonstrating that also between adult and child too low and too high levels of trust represent a deviation from the social norms associated with low quality of social relationships.

Consistent with other research (Rotenberg et al., 2005; Rotenberg, Petrocchi, Lecciso, & Marchetti, 2015), it was found that girls showed greater trust in social workers than boys, but, despite this difference, gender did not moderated the linear and quadratic relations between trust in social workers and engagement.

Limitations and directions for future development can be detected. First, the relatively low sample size requires other research to further analyze the CTGSW properties. Second, the internal consistency of the CTGSW was adequate given the limited number of items, but modest. Future research should apply the scale and further analyze psychometric properties. Third, before administering the questionnaires we secured that every children were able to identify the social worker who was working with them. Notwithstanding, we cannot completely exclude that at some point a measurement error had happened due to the definition of "social worker". Finally, future longitudinal research should employ other measures to evaluate children's engagement with social workers, such as parent-reported or social worker-reported.

Direction for future development involves considerations regarding research and intervention. The current findings gives a contribution for the utility of the BDT framework of interpersonal trust. Our findings extended the evidence of the BDT model (Rotenberg, 2010) to the context of a relationship mandated by law. The model provided a framework to assess causes, correlates, and consequences of children's trust in a range of others from immediate (i.e., mother, father, teachers, peers) and distal social environment (i.e., physicians, social workers). Future research is needed to examine the usefulness of the current scale for all child-social worker relations and, when translated, to such relations in other countries.

The mandated character of the child welfare offers unique challenges to the development and maintenance of trustful relationships from both the child's and social worker's point of view. The interpersonal trust is activated under perception of vulnerability and uncertainty during relations (Rotenberg, 2010) which characterize children-social workers relations (see Bell, 2002). One issue that warrants future consideration is whether interventions could be introduced to assist children in developing well-balanced sense of trust in social workers. This is especially important

for children who hold very low trust beliefs in social workers as done for peer relationships (see Taylor, 1996). On the other hand, another future development is whether guidelines or psychological programs could be implemented to assist social workers to develop their awareness regarding the impact that the relation between trust (notably the reliability and honesty bases) and children's engagement has for their work.

References

Bell, M. (2002) Promoting children's rights through the use of relationship. *Child and Family Social Work*, **7**(1), 1-11. Doi: 10.1046/j.1365-2206.2002.00225.X.

Bloom, M Fischer, J. & Orme, J. (2009) Evaluating practice: guidelines for the accountable professional. (6th ed.) Publisher Pearson: Cambridge.

Byrne, M.B. (2010) *Structural equation modeling with AMOS*. (2nd ed.) Routledge: London.

Betts, L. R. & Rotenberg, K. J. (2007) Trustworthiness, friendships and self-control: factors that contribute to young children's school adjustment. *Infant and Child Development*, **16**, 491–508. doi:10.1002/icd.518.

Betts, L.R. Rotenberg K.J. & Trueman M. (2009) The Early Childhood Generalized Trust Beliefs Scale. *Early Childhood Research Quarterly*, **24**, 175-185.

Betts, L. R. Rotenberg, K.J. Petrocchi, S. Lecciso, F. Sakai, A. Maeshiro, K. & Judson, H. (2013) An investigation of children's peer trust across culture: is the composition of peer trust universal?. *International Journal of Behavioral Development*, **38**(1), 1-9. Doi: 10.1177/0165025413505248.

Child, D. (1990) *The essentials of factor analysis* (2nd ed.). Cassell Educational Limited: London.

Cohen, J. Cohen, P. West, S. G. & Aiken, L. S. (2005) Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences: Routledge: London.

De Boer, C. & Coady, N. (2007) Good relationship in child welfare: learning from stories of success. *Child and Family Social Work*, **12**(1), 32-42. Doi: 10.1111/j.1365-2206.2006.00438.x.

Dennison, S. (2002) Integrating standardized measures into social work practice: An exploratory study of BSW, MSW, and continuing education curriculum. Professional development: the international. *Journal of continuing social work education*, **5**, 2, 38-45.

Drake, B. (1994) Relationship competencies in child welfare services. *Social Work*, **39**(5), 595–602. Doi: 10.1093/sw/39.5.595.

Girvin, H. De Panfilis, D. & Daining, C. (2007) Predicting program completion among families enrolled in a child neglect preventive intervention. *Research on Science Work Practise*, **17**(6), 674-685. Doi: 10.1177/1049731507300285.

Guedeney, N. Fermanian, J. Curt, F. & Bifulco, A. (2005) Testing the working alliance inventory (WAI) in a French primary care setting: predictive value and factor structure. *Social Psychiatry and Epidemiology*, **40**(10), 844-852. Doi: 10.1007/s00127-005-0972-4.

Hafford-Letchfield, T. & Spatcher, P. (2007) Getting to know you: social work students experiences of direct work with children in education settings. *Social Work Education*, **26**(3), 311-317. Doi: 10.1080/02615470601049891.

Horvath, A. O. & Greenberg, L. S. (1989) Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology*, **36**(2), 223–233. Doi: 10.1037/0022-0167.36.2.223.

Jordon, C. & Franklin, C. (1992) Teaching students to perform assessment. *Journal of Social Work in Education*, **28**(2), 222-241.

Killian, M. Forrester, D. Westlake, D. & Antonopoulou, P. (2015) Validity of the Working Alliance Inventory within child protection service. *Research on Science Work Practise*, **4**, 1-12. Doi: 10.1177/1049731515596816.

Kline, R. B. (2011) *Principles and practice of structural equation modeling* (3rd ed.). The Guilford Press: New York.

Korfmacher, J. Green, B. Spellmann, M. & Thornburg, K. R. (2007) The helping relationship and program participation in early childhood home visiting intervention. *Infant Mental Health Journal*, **28**(5), 459-480. Doi: 10.1002/imhj.20148.

Lambert, M. J. & Ogles, B. M. (2004) The efficacy and effectiveness of psychotherapy. In: *Bergin and Garfield's Handbook of Psychotherapy and Behavior Change* (ed M.J. Lambert), pp. 139–193. Wiley: New York.

Larzelere R. E., Huston T. L. (1980). The dyadic trust scale: toward understanding interpersonal trust in close relationships. *Journal of Marriage and Family*, **42**(3), 595-604. Doi: 10.2307/351903.

Lecciso, F. Petrocchi, S. Liverta Sempio, O. & Marchetti, A. (2011) Un contributo per un nuovo strumento di misura delle relazioni tra affetti e mentalizzazione: la trust story. *Psicologia Clinica dello Sviluppo*, **15**(1), 63-94.

Lee, C. D. & Ayón, C. (2004) Is the client-worker relationship associated with better outcomes in mandated child abuse cases? *Research on Social Work Practice*, **14**(5), 351-357. Doi: 10.1177/1049731504265833.

Malti, T. Eisenberg, N. Kim, H. & Buchmann, M. (2013) Developmental trajectories of sympathy, moral emotion attributions, and moral reasoning: the role of parental support. *Social Development*, **22**(4), 773–793. Doi: 10.1111/sode.12031.

Malti, T. Averdijk, M. Zuffienò, A. Ribeaud, D. Betts, L. R., Rotenberg, K. J. & Eisner, M. P. (2015) Children's trust and the development of prosocial behavior. *International Journal of Behavioral Development*, **40**(3), 1-9. Doi: 10.1177/0165025415584628.

Martin, D. J. Garske, J. P. & Davis, K. (2000) Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, **68**(3), 438–450. Doi:10.1037//0022-006X.68.3.438.

McCurdy, K. & Jones, L. (2000) Supporting families: lessons from the field. Thousand Oaks: Sage.

Mc Leod, A. (2010) 'A Friend and an Equal': Do Young People in Care Seek the Impossible from their Social Workers?. *The British Journal of Social Worker*, **40**(3), 772-788. Doi: https://doi.org/10.1093/bjsw/bcn143.

Mundy, C. L. Neufeld, A. N. & Wells, S. J. (2016). A culturally relevant measure of client satisfaction in child welfare services. *Children and Youth Services Review*, **70**, 177-189. Doi: 10.1016/j.childyouth.2016.09.011.

Munro, E. (2010) The Munro Review of Child Protection—Part One: A Systems Analysis.

London, Department for Education. Retrieved from:

https://www.gov.uk/government/publications/munro-review-of-child-protection-final-report-achild-centred-system.

Munro, E. (2011a) The Munro Review of Child Protection: Final Report: A Child Centred System. London, Department for Education. Retrieved from:

https://www.gov.uk/government/publications/munro-review-of-child-protection-final-report-a-child-centred-system.

Munro, E. (2011b) The Munro Review of Child Protection: Interim Report: The Child's Journey. London, Department for Education. Retrieved from:

https://www.gov.uk/government/publications/munro-review-of-child-protection-final-report-achild-centred-system.

Office for Standards in Education, Children's Services and Skills (Ofsted) (2011) The Voice of the Child: Learning Lessons from Serious Case Reviews. Reference no.: 100224, Manchester, Ofsted.

Orlinsky, D. E. Ronnestad, M. H. & Willutzki, U. (2004) Fifty years of psychotherapy process-outcome research: continuity and change. In: *Bergin and Garfield's Handbook of Psychotherapy and Behavior Change* (ed M.J. Lambert), pp.307–389. Wiley: New York.

Randall, B. A. Rotenberg, K. J. Totenhagen, C. J. Rock, M. & Harmon, C. (2010) A new scale for the assessment of adolescents' trust beliefs. In *Interpersonal trust childhood and adolescence* (ed. K.J. Rotenberg). Cambridge: Cambridge University Press. Doi: 10.1017/CBO9780511750946.001.

Rotenberg, K. J. (2010) The conceptualization of interpersonal trust: A basis, domain, and target framework. In *Interpersonal trust childhood and adolescence* (ed. K.J. Rotenberg), pp. 8-23. Cambridge: Cambridge University Press. Doi: 10.1017/CBO9780511750946.001.

Rotenberg, K. J. McDougall, P. B. Boulton, M. J. A. Vaillancourt, T. C. Fox, C. A. & Hymel, S. D. (2004) Cross sectional and longitudinal relations among peer-reported trustworthiness, social relationship, and psychological adjustment in children and early adolescents from United Kingdom and Canada. *Journal of Experimental Child Psychology*, **88**(1), 46-67. Doi: 10.1016/j.jecp.2004.01.005.

Rotenberg, K. J. Fox, C. A. Green, S. Ruderman, L. Slater, K. Stevens, K. & Carlo, G. (2005) Construction and validation of children's interpersonal trust belief scale. *British Journal of Developmental Psychology*, **23**(2), 271–293. Doi: 10.1348/026151005X26192.

Rotenberg, K. J. Cunningham, J. Hayton, N. Hutson, L. Jones, L. Marks, C. Woods, E. & Betts, L. R. (2008) Development of a children's trust in general physicians scale. *Child: Health, Care and Development*, **34**(6), 748-756. Doi: 10.1111/j.1365-2214.2008.00872.x.

Rotenberg, K. J. Addis, N. Betts, L. R. Fox, C. Hobson, Z. Rennison, S. & Boulton, M. J. (2010) The relation between trust beliefs and loneliness during early childhood, middle childhood and adulthood. *Personality and Social Psychology Bulletin*, **36**(8),1086–1100. Doi: 10.1177/0146167210374957.

Rotenberg, K.J., Petrocchi, S., Lecciso, F., Marchetti, A., & (2013) Children's Trust Beliefs in Others and Trusting Behavior in Peer Interaction. *Child Development Research*, 8 pages. Article ID 806597, doi:10.1155/2013/806597

Rotenberg, K. J. Petrocchi, S. Lecciso, F. & Marchetti, A. (2015) The Relation Between Children's Theory of Mind and Trust Beliefs in Parents. *Infant and Child Development*, **24**, 206–214. DOI: 10.1002/icd.1891.

Rotenberg, K. J. Woods, E. E. & Betts, L. R. (2015) Development of a scale to assess children's trust in general nurses. *Journal for Specialistics in Pediatric Nursing*, **20**(4), 298-303. Doi: 10.1111/jspn.12126.

Royse, D. & Thyer, B. (2009) Program evaluation: an introduction. (5th ed.). Cengage Learning: Boston.

Rotter, J. B. (1967) A new scale of the measurement of interpersonal trust. *Journal of Personality*, **35**(4), 651-655. Doi: 10.1111/j.1467-6494.1967.tb01454.x.

Rotter, J. B. (1971). Generalized expectancies for interpersonal trust. *American Psychologist*, **26**(5), 443-452. Doi: 10.1037/h0031464.

Winefield, H. R. & Barlow, J.A. (1995) Client and worker satisfaction in a child protection agency. *Child Abuse and Neglect*, **19**(8), 897–905.

Winter, K. (2011) Building Relationships and Communicating with Children: A Practical Guide for Social Workers. Routledge: London.

Winter, K. Cree, V. Hallett, S. Hadfield, M. Ruch, G. Morrison, F. & Holland, S. (2016) Exploring communication between social workers, children, and young people. *British Journal of Social Work*, **0**, 1-18. Doi: 10.1093/bjsw/bcw083.

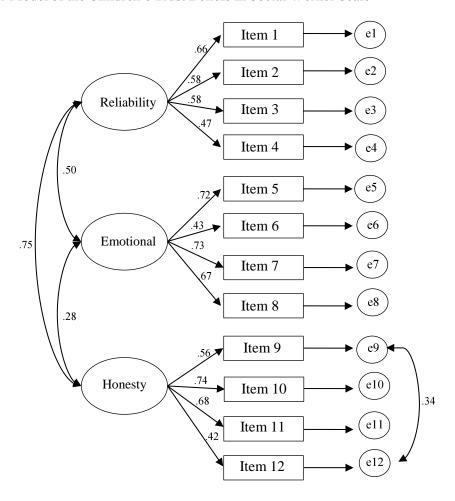
Taylor, G. (1996) Creating a circle of friends: A case study. In: *Peer counselling in schools* (eds H. Cowie & S. Sharp), pp. 73–86. Fulton: London.

¹ The relations among trust in social workers and engagement were analyzed with and without this item with similar results. For this reason, the item were included into the final analyses.

Figures and Tables

Figure 1

The three-Factor Model of the Children's Trust Beliefs in Social Worker Scale



All paths and covariances attained the significance, p < .05

Figure 2

Linear and quadratic effects of children's trust in social workers and their engagement with social workers.

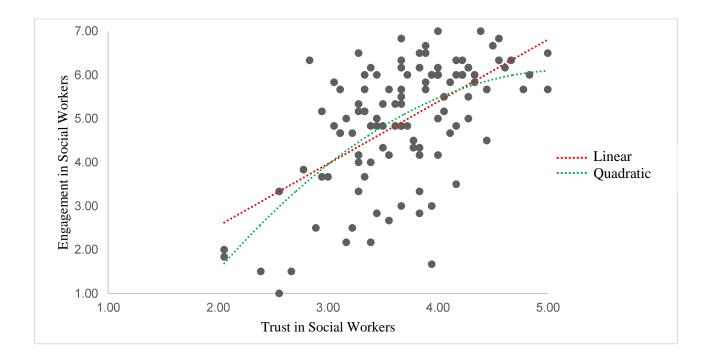


Table 1: Correlations between I-CGTB and CT-CPS-SW dimensions.

-		Emotional	Honesty	Reliability	Emotional	Honesty	Engagement
	M(SD)	I-CGTB	I-CGTB	CT-CPS-SW	CT-CPS-SW	CT-CPS-SW	Engagement
Reliability I-CGTB	3.64 (.64)	.59***	.58***	.46***	.33***	.46***	.30^^
Emotional I-CGTB	3.67 (.67)		.33***	.42***	.50***	.29**	.31^^^^
Honesty I-CGTB	3.10 (.75)			.22*	.15	.43***	.13
Reliability CT-CPS-SW	4.01 (.70)				.39***	.49***	.47^^^
Emotional CT-CPS-SW	3.79 (.76)					.19*	.16^
Honesty CT-CPS-SW	3.41 (.92)						.54^^^
Children's Engagement with Social Workers							

Social workers

Note: df = 110; M = mean; SD = standard deviation; I-CGTB= Italian Children's Generalized Trust Beliefs Scale; CT-CPS- $SW = Children's \ Trust \ Beliefs \ in \ Child \ Protection \ Service \ Social \ Workers; \ Engagement = Children's \ engagement \ with \ social \ workers; \ ^p < .05 \ one-tailed; \ ^p < .01 \ one-tailed; \ ^p < .001 \ one-tailed; \ ^p < .001; \ ***p < .001.$

Table 2: Linear and Curvilinear Regression Analyses on Children's Engagement.

	В	SE B	β	t
Reliability CT-CPS-SW	.37	.13	.26	2.72**
Emotional CT-CPS-SW	007	.11	006	066
Honesty CT-CPS-SW	.51	.11	.42	4.69***
Trust in Social Workers (Linear)	1.29	.18	.56	7.24***
Trust in Social Workers (Curvilinear)	51	.19	-1.61	-2.59*

Note: CT-CPS-SW = Children's Trust Beliefs in Child Protection Service Social Workers; *p < .05; **p < .01; ***p < .001.