

Article

Telepractice in Early Childhood Intervention: A Parent-Reported Social Validity Scale

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ABSTRACT

Antecedents: In recent years, telepractice has become widespread as an intervention strategy in Early Childhood Intervention (ECI) services. However, studies supporting its use in this field remain scarce. Because reliable instruments are needed to evaluate the perceived quality, satisfaction and the acceptability of telepractice from the families' perspective, the present study aims to report the psychometric properties of an ECI-specific instrument that includes a variety of social validity indicators that are also important and consistent with a family-centered approach. **Method:** This study, with a sample of 738 families, introduces an instrument aimed at evaluating the social validity of telepractice. The scale includes the main indicators of social validity: Usability, Effectiveness; Feasibility, Utility, intervention with natural caregivers, and Future Intentions. The study aims to report its psychometric properties through a split-sample method, conducting both exploratory and confirmatory factor analysis with randomly assigned sub-samples. **Results:** We found that all seven items fit into one factor measuring social validity of telepractice, with acceptable internal consistency and sensitive enough to capture differences between the type of service delivery families received. **Conclusions:** In addition, the proposed instrument provides relevant information for professionals to improve the quality of service-delivery in ECI.

Telepráctica en Atención Temprana: una Escala de Validez Social Informada por Padres

RESUMEN

Antecedentes: En los últimos años, la telepráctica se ha generalizado como estrategia de intervención en los servicios de Atención Temprana. Sin embargo, los estudios que avalan su uso en este ámbito siguen siendo escasos. Además, las investigaciones muestran que es necesario disponer de instrumentos fiables para evaluar la calidad percibida, la satisfacción y la aceptabilidad de la telepráctica, tanto desde la perspectiva de los profesionales como de las familias. **Método:** Este estudio, realizado con una muestra de 738 familias, introduce un instrumento destinado a evaluar la validez social de la telepráctica y analiza sus propiedades psicométricas. La escala integra los principales indicadores de validez social: Usabilidad, Eficacia; Viabilidad, Utilidad, intervención con cuidadores naturales e Intenciones de futuro. **Resultados:** Los resultados de este estudio mostraron la fortaleza de este instrumento reportado por los padres para medir la validez social de la telepráctica en la Intervención Temprana. **Conclusiones:** Además, el instrumento propuesto proporciona información relevante para los profesionales que mejoran la calidad de la prestación de servicios en Atención Temprana.

Palabras clave:

Telepráctica
Intervención en la primera infancia
Validez social
Análisis factorial

In recent years, the field of application of telepractice has been broadened by introducing the many possibilities currently provided by technology and innovation into the various health programs (Tomlinson et al., 2018).

This has also had an impact on the field of Early Childhood Intervention (ECI). At present, telepractice has become widespread as an intervention strategy in ECI services (Schiariti & McWilliam, 2021; Sivaraman & Fahmie, 2020). The reasons for this methodological change in the field of ECI can be attributed mainly to four factors: a) the measures adopted to counteract the health and social situation resulting from COVID-19, b) the promotion of greater accessibility to services -especially in rural areas- c) the lower economic cost of telepractice services, and d) the possibility of interacting with families asynchronously at any time in the intervention (Martínez-Rico et al., 2021; Sivaraman & Fahmie, 2020). All these changes suggest that telepractice will become a key resource -or at least complementary- in the ECI system in the next decade (Behl et al., 2017; Cole et al., 2019).

Telepractice is defined as the use of electronic information and tele-communication technologies to support remote care (Lusting, 2012) and allows the combination of telehealth technologies in both real-time (synchronous) as well as more flexible re-visualization activities (asynchronous) to provide these services (Fischer et al., 2017).

Telepractice as an intervention methodology in ECI involves communicating via telephone, email, video conferencing or using tablet applications (Gerrits et al., 2007; Gregoski et al., 2012). Its applications have been diverse in the disability field. For example, in parent training (Lee et al., 2022; Reese et al., 2015; Xie et al., 2013), in intervention with parents of children with autism spectrum disorder (Boisvert et al., 2010; Nicolson et al., 2020), in the field of intellectual disability (Behl et al., 2017), in speech and language therapy interventions (Grogan-Johnson et al., 2011) or in the field of mental health (Hilty et al., 2002).

Telepractice, broadly defined as the provision of health and social care intervention at a distance, is not new (Camden & Silva, 2021). In recent years, telepractice has been implemented in different fields of intervention (Machalicek et al., 2010), and has shown its efficacy and acceptability in different studies. Fischer et al. (2016) found that telepractice was effective as a means to deliver behavioral consultation support services to teachers in order to improve child outcomes, and they also found it acceptable. In another study by Fischer et al. (2017), the acceptability of videoconferencing between school psychologists and teachers was studied as a means of effective consultative communication and found that teachers rated it as acceptable even with no prior experience, and significant improvements in acceptability were found after giving them the opportunity to practice. Behl et al. (2017) analyzed the effectiveness of telepractice as a method of delivering services to families of infants and toddlers who are deaf or hard of hearing with an “in-person” comparison group of families. They found no between-group differences in family outcomes (support, knowledge, and community involvement) and statistically significant differences in child outcomes (receptive communication and overall language scores) were found with higher scores in the telepractice group.

The implementation of remote telepractice has also shown important results in the delivery of early childhood services related to social validity. On the one hand, this modality of intervention has

been shown to offer relevant opportunities to reinforce the family-centered approach (Camden & Silva, 2021). On the other hand, this methodology has shown a significant increase in the involvement of the main caregiver in the interventions with their child, as the goals are focused on transferring strategies to the caregiver that increase their involvement and participation, as the professional is not physically present (Meadan & Daczewitz, 2015).

However, some methodological limitations have also been identified in the research. These limitations mainly affect the validity and reliability of the measuring instruments used to assess the perceived value of telehealth users (Langbecker et al., 2017).

Also, given that telepractice is a relatively emerging area of research (Sivaraman & Fahmie, 2020), studies supporting its use in the field of ECI remain scarce (Schiariti & McWilliam, 2021). As Turan & Meadan (2011) point out, very little information is available on the social validity of the interventions developed through telepractice, especially in ECI.

Social validity aims to assess whether the intervention approach and the results obtained, meet the demands of the users, i.e., in the case of ECI whether they meet the demands of the families (Nicolson et al., 2020; Turan & Meadan, 2011). That is, telepractice can be said to be socially relevant (social validity) if it fits the needs and characteristics of the family.

The conceptual basis of social validity assessment was consolidated in the early work of Kazdin (1977) and Wolf (1978) and has since been applied to the field of research. Social validity, according to these authors, focuses on three levels: (a) the social meaning of the intervention’s objectives, (b) the users’ acceptability of the methodology developed in the intervention, and (c) the users’ perceptions and satisfaction with the results of the intervention. In other words, to assess the social validity of the objectives, processes and outcomes.

In general, instruments designed to assess social validity in the field of intervention are necessary. However, in the case of distance intervention in the field of ECI, the assessment of social validity is even more necessary as it is a modality that is currently in full development. One of the first instruments to assess social validity was designed by Kazdin (1977). The Treatment Evaluation Inventory (TEI) contained 15 items that together captured parents’ satisfaction and social acceptance of the treatment received by their children with conduct disorders. Subsequently, a shortened version of this instrument was developed - Treatment Evaluation Inventory–Shortened Form (TEI-SF) - (Kelley et al., 1989). Similar instruments were designed to measure the social validity of the intervention in the field of behavior management, such as the Treatment Acceptability Rating Form (Reimers et al., 1991), the Abbreviated Acceptability Rating Profile (Tarnowski & Simonian, 1992) and the Behavior Intervention Rating Scale (Elliott & Treuting, 1991).

More recently, Turan and Meadan (2011) define methods and criteria for assessing social validity and gathering feedback from participants to guide program planning and evaluation, and to identify meaningful and functional behaviors of children with disabilities in their natural environments. Nicolson et al. (2020) point out that social validity assesses the degree of acceptability of the intervention and provides sufficient criteria to analyze whether the processes applied are socially meaningful and valid. These authors consider that professionals should always assess the social validity of the intervention.

Langbecker et al. (2017) also established criteria for assessing user perceptions, attitudes and overall outcomes of telehealth using the survey instrument. These authors point out the need to assess social validity and the clear shortcomings of many studies in not considering this variable in their research reports. This question is crucial to determine which telepractice strategies improve outcomes and for which types of users.

For example, Fisher et al. (2014) developed a questionnaire to measure social validity. The scale consisted of 14 items related to the use of technology, the content of the modules developed online, interactions with users and the user's overall satisfaction with the intervention. The results obtained in their study show the validity of this methodology. Fischer et al. (2017) designed complementary instruments to assess telepractice, its effectiveness, reliability and acceptability: Technology Acceptance Model Instrument-Fast Form FF-TAM; Behavior Intervention Rating Scale (BIRS) or Consultation Acceptability Rating Scale (CARS).

Nicolson et al. (2020) also provide various instruments (Structured Interview: Consumer Feedback on Treatment Decisions and Rating Scale for Structured Interview on Consumer Feedback) to assess social validity as a function of the intervention context. In their tool they focus on the structured interview as a method to assess the social value of ongoing interventions, analyzing users' subjective perceptions and ratings. They define as a critical objective the fact that families accept the distance intervention modality as valid, value its usefulness and perceive it as relevant to their lives. It is especially relevant that they are able to carry out the interventions with the remote coaching in the absence of the coach on site.

Park and Blair (2019) reviewed different social validity measures in 28 studies published between 2001 and 2018. Among other findings, they warned of the need to: (a) promote implementation fidelity to improve social validity outcomes, (b) delimit the frequency and timing of social validity assessment, and (c) develop social validity assessment tools designed to assess objectives, procedures, and outcomes.

Therefore, it is necessary to have reliable instruments that evaluate the perceived quality, the acceptability, and satisfaction with telepractice, from the perspective of both professionals and families (Langbecker et al., 2017; Nicolson et al., 2020). These indicators allow assessing social validity of telepractice as a method of supporting families (Turan & Meadan, 2011) and contribute as an evidence-based practice (EBP) (Reichow et al., 2008).

This article focuses on telepractice and virtual visits in remote ECI services (Poole et al., 2020). The present study proposes a family-reported instrument designed for this research aimed at evaluating the quality and usability of telepractice in the field of ECI -social validity- (Turan & Meadan, 2011). We analyzed the factorial structure and psychometric properties of the Social Validity of Early Intervention through Tele-Intervention (SVEITI) scale, which articulates key components of social validity (Dunst & Hamby, 2017; Dunst, 2017; Park & Blair, 2019) that are necessary for a family-centered early tele-intervention: usability, effectiveness, relationship with the professional, feasibility, usefulness, and future intentions around telepractice. To the best of our knowledge, there are no specific early intervention tools that collect information from all of these social validity components and consistent with the recommended family-centered and capacity-building approach to services. Therefore the present study aimed to: 1) Examine the

psychometric properties and factor structure of the developed SVEITI scale, and 2) test the scale's ability to capture differences between service delivery approaches.

Method

Participants

A total of 738 Spanish families receiving telepractice services ECI services around Spain participated in the present survey-based study. Most families reported receiving EI services for one child, whereas only 2.3% of families had two children in early intervention and were families with two adults in the home in almost 82% of the cases ($N = 540$) followed by single-parent families with almost 7% ($N = 45$). As shown in table 1, families with 3 or 4 children receiving services might indicate the potential reason for receiving services is due to social risk factors as part of the prevention role of ECI services. For that reason, all children in the family aged 0-to-6 are included in the program. Families did not report on child's age in 74 cases (10.7%). We can assume, however, that they were receiving ECI services because they received e-mail from their service providers. Telepractice was delivered by a combination of SMS/e-mail + videoconferencing + WhatsApp® in most cases (46.75%), whereas follow up by phone only was the least frequent (20.73%). For further detail, Table 1 presents the characteristics of participants.

Participants were recruited using a convenience-sampling method, from Castilla y León's ECI public services and *Plena Inclusión*, the Spanish Confederation of Organizations for People with Intellectual Disabilities and their families, which includes 119 EI centers around Spain in their early childhood section. The scale was sent electronically via link to the different early childhood intervention centers and professionals, who forwarded the link to families of their caseloads. Participation was voluntary and anonymous, and any family currently receiving or having received telepractice services were included in the study. The number of families invited is unknown to the researchers, so is the completion rate. No compensation was offered for the completion of the SVEITI scale. The link was sent between October and December 2020, after the lockdown situations experienced because of the pandemic during Covid-19. Families' participation was anonymous and voluntary. The families had access to the questionnaire after consenting to participate. These procedures were approved by an Institutional Review Board.

Instruments

This article focuses on telepractice and virtual visits in remote ECI services (Poole et al., 2020). The present study proposes a family-reported instrument designed for this research aimed at evaluating the quality and usability of telepractice in the field of ECI -social validity- (Turan & Meadan, 2011). The name of the instrument is Social Validity of Early Intervention through Tele-Intervention (SVEITI), and it was used to measure families' perception of social validity of telepractice in ECI services. The instrument was based on Plena Inclusión's guidelines for interviewing families about social validity as well as the recommendations by the components of SV recommended by Dunst & Hamby (2017); Dunst (2017); Park & Blair (2019), such as effectiveness, usability, usefulness, confidence in its use or future intentions.

Table 1.
Characteristics of Participants

	<i>N</i>	<i>%</i>
Region		
Castilla-La Mancha	340	46.1
Castilla-León	174	23.6
Comunidad de Madrid	9	1.20
Comunidad Valenciana	49	6.6
Extremadura	166	22.5
Total	738	100
Father Employment status		
Unemployed	97	13.1
Face-to-face (total or partial)	400	54.2
Telecommuting	125	16.9
Subsidized work stoppage, benefits or aids	85	11.5
N/A	31	4.20
Total	738	100
Mother Employment status		
Unemployed	308	41.7
Face-to-face (total or partial)	164	22.2
Telecommuting	126	17.1
Subsidized work stoppage, benefits or aids	89	12.1
N/A	51	6.9
Total	738	100
Child's gender		
Niña	204	27.6
Niño	513	69.5
boy & Girl (2 children in EI)	17	2.3
N/A	4	0.5
Total	738	100
Relationship with the child		
Mother	666	90.24
Father	57	7.72
Legal Guardian	6	0.81
Other (uncles, aunts, grandparents, foster parents)	9	1.22
Total	738	100.0
Children in EI		
1	681	92.28
2	46	6.23
3 or more	4	0.54
Missing	7	0.95
Total	738	100.00
Type of Telepractice		
Phone calls only	153	20.73
Phone calls + videoconferencing + e-mail	230	31.17
SMS/e-mail + videoconferencing +whatsapp	345	46.75
Missing	10	1.36
Total	738	100.00
	<i>M</i>	<i>SD</i>
Child's Age (range 1-6 years); N = 659, N/A = 74	3.93	1.50
Number children in the home (range 1-6)	1.697	0.74
Number adults in the home (range 1-7)	2.040	0.44
Number children receiving services (range 1-4)	1.075	0.29

Specifically, the SVEITI scale articulates the following seven components of social validity that are necessary for a family-centered early tele-intervention: 1) usability, 2) effectiveness for confidence (Family perception of effective telepractice to improve their confidence), 3) effectiveness for competence (Family perception of effective telepractice to improve their parenting competence), 4) relationship with the professional, 5) feasibility, 6) usefulness, and 7) future intentions around telepractice. Examples of the items are “Tele-intervention sessions help me improve my skills to support my child’s development” (Effectiveness –competence-) or “Tele-intervention sessions are as useful as in-person visits” (Usefulness). Families responded on a Likert scale of 1-to-4 the degree of agreement (1 = *strongly disagree* to 4 = *strongly agree*) with the statements.

The internal consistency of the scores with all participants of the present study indicated a value of Cronbach’s alpha of $\alpha = .832$ and McDonald’s omega .845. Additionally, ordinal alpha was .888, and the average interitem correlations was .532. No improvement in alpha or omega was found if items were deleted. The results indicated the absence of collinearity at the item level.

Procedure

Because no ECI-specific tools measuring social validity of telepractice as a means of support, we used items in other social validity measures in the telepractice field to compare and reach consensus on the item adaptation to the ECI field following the recommendations by [Hernández et al. \(2020\)](#).

Specifically, we used the Family Tele-Intervention Survey by the National Center Hearing Assessment Management (NCHAM; 2011). It consists of 8 Likert-type items rated from 1 = *strongly disagree* to 4 = *strongly agree* and it focuses on telepractice for children who are deaf or hard of hearing. It includes two open-ended questions about concerns and benefits of the use of internet-based intervention.

In addition, we used some of *Plena Inclusión*’s items for interviewing families receiving telepractice supports. We also considered the social validity indicators used by [Dunst & Hamby \(2017\)](#); [Dunst \(2017\)](#); [Park & Blair \(2019\)](#), such as effectiveness, usability, usefulness, confidence in its use or future intentions.

With these resources of information, a group of experts worked together to: 1) combine and adapt the NCHAM’s tool with *Plena Inclusión* items, 2) adapt and reword the items to refer to all children in early intervention, not only deaf or hard of hearing, and 3) match the items to social validity indicators and ensure that all items were relevant to the social validity.

The expert-group was composed by seven service providers, three service coordinators, and three family members with a child receiving services. All of them had experience with telepractice. *Plena Inclusión* Castilla la Mancha and *Plena Inclusión* Extremadura were represented in the expert-group and participated in the tool-development process. The group followed a Q-Sort procedure and classified the items’ relevance in *highly relevant*, *somewhat relevant*, *not relevant* for telepractice in ECI ([Prieto-Saborit et al., 2022](#)).

All the steps above were aligned with the initial steps –1 to 5- recommended by [Muñiz and Fonseca-Pedrero \(2019\)](#) for test development. Seven items were classified as *highly relevant* and authors, who were blind to the other’s classifications, reached total

consensus after discussion. After that, the items were piloted. We sent the instrument to both professionals and families and ensured that the items were understandable, relevant and clear. Families and providers reported that the items were appropriate, clear, and understandable, and no changes were needed. This pilot test matches step #6 by [Muñiz and Fonseca-Pedrero \(2019\)](#).

The experts agreed that the items developed after the adaptation to the ECI context, fit under one single theoretical dimension of social validity in ECI services via telepractice. The dimension included indicators of family perceptions about their experience with telepractice.

Steps #8 and #9 recommended by the mentioned authors -relative to test the instrument and explore its psychometric properties- represent the main target of the present article towards the design of an improved version after the adjustments drawn from our results (step #10). The procedures described above were approved by the competent institutional review board at the authors' academic institution.

Data Analysis

The Statistical Package for Social Sciences v. 24.0 (SPSS; [IBM, 2019](#)) was used for descriptive statistics, reliability analysis, and to conduct an exploratory factor analysis (EFA), and JASP v 0.16 ([JASP Team, 2021](#)) was used for confirmatory factor analysis (CFA). The factor structure was studied through Exploratory Factor Analysis (EFA) to identify the latent structure of the variables, as a theory-generating process, and Confirmatory Factor Analysis (CFA), as a theory-testing procedure, of the results (and underlying theory) suggested by EFA ([Pituch & Stevens, 2015](#)). CFA allows the specification of the number of factors and items to be tested. A random split sampling technique was used to independently analyze EFA and CFA.

In addition, we used R ([R core team, 2022](#)) to calculate ordinal alpha and McDonald's Omega, with values above 0.8 indicating a good internal consistency of the scores. We split the sample in two groups, performing EFA in a one group, and CFA in the other. This procedure is commonly used to avoid distortions ([García-Alba et al., 2021](#); [Izquierdo et al, 2014](#); [Waterson et al., 2010](#)). A random assignment was conducted into two subsamples of 343 (46.47%) and 395 (53.52%) participants, used for EFA and CFA, respectively. Assumptions for factor analysis, such as subject: item ratio, sample size, normality, linearity, and correlation between variables ([Tabachnick & Fidell, 2019](#)) were checked. Assuming an oblique relationship between variables, the Promax rotation method was used to perform the EFA. In order to explore the underlying factors, we used eigenvalue greater than 1 ([Harman, 1976](#)) with weighted least squares (WLS) method of extraction due to the ordinal nature of the data. Internal consistency was analyzed through Cronbach's alpha, ordinal alpha, and McDonald's omega values. We also calculated the fit of the data through homogeneity test, KMO Index, and Bartlett's test of sphericity ([Kaiser, 1974](#)). Through CFA, however, we tested for the data fitting the solution given by the EFA. We employed diagonally weighted least squares estimation for the CFA. Fit indices were Chi-square, the root mean square error of approximation (RMSEA), the comparative fit index (CFI) and the Tucker-Lewis index (TLI). A non-significant chi-square test indicates an adequate fit to the data. A near-zero RMSEA and a CFI and TLI close to 1.0, indicate an excellent fit to the data ([Hu](#)

& [Bentler, 1999](#)). Finally, a t test was conducted to determine the sensitivity of the scale to capture changes in families' ratings of social validity with different teleintervention approaches.

Results

Descriptive statistics showed that the overall SVEITI core was higher than 3 points out of 4. Families' perception about the T-I having the same utility as the in-person intervention was the item with the lowest score ($M = 2.6, SD = .93$). The item receiving the highest mean score ($M = 3.37, SD = .71$) was "Meet needs", which referred to families' perception about the T-I being a good fit for their circumstances and personal needs. This information can be consulted in [table 2](#).

Table 2
Descriptive Statistics of the SVEITI Scale

Item	N	M	SD	Min	Max
Usability	738	3.348	0.675	1.00	4.00
Effectiveness (Competene)	737	3.300	0.702	1.00	4.00
Effectiveness (Confidence)	738	2.622	0.879	1.00	4.00
Intervention with natural caregiver	738	3.512	0.678	1.00	4.00
Feasibility	738	3.373	0.711	1.00	4.00
Usefulness	691	2.556	0.925	1.00	4.00
Future Intentions	735	2.576	0.876	1.00	4.00
Overall SV	738	3.047	0.556	1.00	4.00

Evidence of Validity Based on Internal Structure

We conducted an EFA on the social validity scale. The Kaiser-Meyer-Olkin was 0.84 and the Bartlett's test of sphericity was statistically significant: $\chi^2(21) = 1045.592, df = 21, p < .001$. These results suggested the adequacy of the data for factor analysis.

We conducted an exploratory factor analysis to determine the underlying factors. As mentioned above, Promax rotation and WLS estimation were employed. The solution extracted one factor with all 7 items with factor loadings above .57 and explained 46.50% of the variance. [Table 3](#) presents factor loadings for the EFA, showing the suggested one-factor solution. The internal consistency of the scores with this sub-sample ($n = 343$) indicated that Cronbach's was $\alpha = .85$, McDonald's Omega = .839 and ordinal alpha was = .898 and the average interitem correlations was .558. No improvement in Cronbach's or McDonald's alpha were found if items were deleted.

On the other hand, results of the CFA analysis with the second sub-sample ($n = 395$) showed factor weights between .340 and .598 and all estimates were statistically significant. As expected by the different sample size, slight differences in items were found, with different loading distribution with regard the EFA. Whereas the item with the highest loading was, in both cases, item 2 "Competence", the item with the lowest loading according to CFA was item 7 "Future intentions" and not item 5 "Confidence" as suggested by EFA. The goodness of fit of the CFA, however, was good overall, indicating that only one factor suggested by the EFA had an appropriate fit to the data: Chi-square = 50.092; $df = 13, p < .001$, CFI = .96, TLI = .94, RMSEA = .08. [Table 3](#) presents factor loadings for the CFA, showing the confirmed one-factor solution.

Table 3
Factor Loadings of Both EFA and CFA

	EFA (<i>n</i> = 343)			CFA (<i>n</i> = 395)				
	Loading	Uniqueness	Estimate	SE	<i>z</i>	<i>p</i>	Lower	Upper
Usability	0.766	0.414	0.528	0.038	13.880	< .001	0.453	0.602
Effectiveness (Competence)	0.804	0.354	0.598	0.038	15.732	< .001	0.524	0.673
Effectiveness (Confidence)	0.526	0.724	0.403	0.045	8.952	< .001	0.315	0.491
Partnership	0.638	0.592	0.400	0.045	8.817	< .001	0.311	0.489
Feasibility	0.799	0.361	0.555	0.039	14.273	< .001	0.479	0.631
Usefulness	0.605	0.634	0.519	0.049	10.597	< .001	0.423	0.615
Future Intentions	0.557	0.690	0.340	0.053	6.463	< .001	0.237	0.444

Finally, we tested the whether the scale was able to capture differences with all 7 items. We compared the scores of families receiving family-centered (F-C) versus non-family-centered (Non-F-C) tele-intervention and used the average Social Validity score as a dependent variable.

Families who reported 1) having their priorities reflected in the intervention, 2) their role was active during teleintervention sessions, 3) having a voice in decisions about interventions, 4) being supported by a primary service provider (PSP), and 5) that the intervention was planned to occur in the natural environment and implemented by caregivers, were labeled as receiving family-centered supports. Families who reported only one or two of the mentioned criteria were coded as receiving non-family-centered (non-F-C) supports. The classification showed that 283 received “non-F-C” supports and 454 families received “F-C” supports.

Results of the independent samples analysis showed that families receiving “non-F-C” supports ($M = 2.88$, $SD = 0.56$) scored significantly lower ($t = 6.51$, $df = 735$, $p < .001$) than families receiving F-C supports ($M = 3.15$, $SD = 0.53$), indicating that the scale was sensitive enough to capture differences in scores endorsed by families receiving different telepractice approaches.

Discussion

Research shows that there is a need for reliable instruments assessing the social validity of telepractice (Langbecker et al., 2017; Reichow et al., 2008; Turan & Meadan, 2011). This study presents a parent-reported instrument aimed at evaluating quality and usability of telepractice by families in the field of ECI, analyzing its psychometric properties. This contribution is relevant in this field because there is a paucity of research examining the perceptions of families and providers about the efficacy of telepractice in ECI (Cole et al., 2019).

The results show that all the indicators of the SVEITI scale work well together measuring the same construct. In addition, it is a short (7 items) scale that includes important indicators on social validity established by (Dunst & Hamby, 2017; Dunst, 2017; Park & Blair, 2019; Reichow et al., 2008) relevant to telepractice in ECI. These indicators are, Usability -whether the technology used (phone calls, email, computer applications (zoom, video calls, Duo, Skype, etc.) allows the communication and development of the sessions-; Effectiveness -if telepractice help improving

the skills and confidence of the main caregiver to support child development-; Feasibility -whether telepractice sessions are tailored to personal and family circumstances-; Usefulness -whether telepractice sessions are as useful as face-to-face visits; and Future intentions, -whether families intend to continue receiving telepractice sessions in the future-. These elements of the scale are aligned with the recommendations established by research in the field of telehealth (Cole et al., 2019; Fischer et al., 2017; Langbecker et al., 2017; Poole et al., 2020; Sivaraman & Fahmie, 2020; Turan & Meadan, 2011).

Finally, the scale captures significant information from families and is sensitive to capture different perceptions of families based on the methodology in ECI through telepractice. While there are several instruments to evaluate telepractice (Fischer et al., 2017; Poole et al., 2020), few reliable social validity instruments applied to the field of telepractice in ECI are available (Cole et al., 2019). The results of this study show the strength of the SVEITI instrument. The scale integrates to the recommendations established by (Fischer et al., 2017) on effectiveness, reliability and acceptability of telepractice.

This study has a large sample of 738 families who assessed the social validity of telepractice in ECI. However, for future adaptations of the scale, it would be interesting to consider the cultural aspects that might affect the experience with telepractice, specifically the confidence and collaborative relationship between professionals and families, and the acceptance and quality of telepractice in ECI (Sivaraman & Fahmie, 2020).

In the present study, we gathered information about family characteristics such as number of children or number of adults in the home. However, the family situation such as divorce or other reasons for single-parent families was not assessed. Beyond exploring its psychometric properties, future research using this tool could examine the families' social validity appraisals with different family situations and structure.

In addition, as a practical recommendation, we encourage ECI programs to assess social validity of telepractice to inform service decisions and improvements. The SVEITI scores provide useful information for program quality because it not only includes indicators on family-professional partnerships but also indicators of potential room for improvement in service quality. Table 4 shows an example of how SVEITI items can help and guide service decisions and improvements in addition to the overall score.

Table 4
Potential Service Improvement Decisions from Each SVEITI Item

Item	Service improvement
Usability	How usable is this means of communication for the family. This information can be used to decide whether a family needs technical assistance, or the means and type of communication can be accommodated.
Effectiveness (Competence) & Effectiveness (Confidence)	This can help programs improve their focus of service delivery. From a capacity-building approach, these items together inform about family capacity (competence and confidence). The broadly accepted recommended practices in the field of ECI state that supports should be delivered using a family-centered approach. Thus, these items can be informative of successful family outcomes.
Intervention with primary caregivers	Potential low scores here might be indicating that there is room for improvement in the collaborative relationship with a family. Family consultation and coaching strategies can help improve this aspect.
Feasibility	This informs programs about how families can accommodate to this means of communication as well as the families' ability to implement strategies and interventions with their children. When the intervention is not feasible, probably the strategy, the scheduling, the means of communication, or the intervention itself should be accommodated.
Usefulness	A low score here might indicate that the current support has not target- or addressed- outcomes that the family finds useful. These scores can be used to reflect about ways that can be implemented to address real family needs.
Future Intentions	This indicator can help decide whether a family is suitable and willing to continue receiving support services via telepractice even when social distancing is not limited. Frequency of in-person services can be re-considered.

In conclusion, the SVEITI scale, applied to the field of ECI, is shown as an appropriate instrument to measure the social validity of telepractice from the perception of families. In addition, the proposed instrument provides relevant information for professionals with the aim of improving the quality of service delivery in ECI.

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