SAFE PLACE: Construct Validity Through Video Review – Project Summary

Project completed
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The Koomar Center — OTA — Collaborative Therapies • Sensory Integration

SAFE PLACE: Construct Validity Through Video Review-Project Summary

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Introduction

SAFE PLACE is both a theoretical model explicating the relationship between sensory processing, disrupted attachment and complex developmental trauma concerns in children; and a specific 12-week collaborative, interdisciplinary, sensory integration-based trauma-informed intervention program among occupational therapists, psychotherapists, and parents for children with sensory processing disorder (SPD) and complex trauma-attachment concerns. SAFE PLACE provides a therapeutic framework for service providers and parents which emphasizes development of body-based regulatory and adaptive functions with co-regulation and intersubjective experiences, deepening of attachment bonds and security, and processing and healing of traumatic experiences in the context of a sensory integration intervention process.

The purpose of this project was to examine existing applications of the SAFE PLACE model during individual sessions in clinical practice and identify common themes which occurred during these sessions as a means of validating or refuting the core principles proposed by the SAFE PLACE model. A preliminary version of a fidelity instrument was also examined.

Study Design

This project utilized mixed methods including using a grounded theory model to examine qualitative themes in transcriptions of video segments.

Data

OTA the Koomar Center retains a library of videos of treatment and assessment sessions for which permission has been given for use in clinical, educational and programmatic purposes. While first names and faces were recognizable on the videos, last names were removed.

For this project, six videos were selected from the available sessions. Criteria was as follows:

a) The session had to include, at a minimum, an occupational therapist, a mental health practitioner (usually a psychotherapist or psychologist), a parent, and the child.
b) The session involved an occupational therapist, and/or mental health professional with knowledge of SAFE PLACE principles.

The six videos represented 5 children, 3 occupational therapists, and 3 mental health professionals. One child had a double session so that video was divided into two segments. Four segments were known to be treatment sessions, one session was a consultation, and the last session was an evaluation with parent consultation.

Four occupational therapists, including the primary investigator, were recruited to review the 6 video segments. All therapists were familiar with the SAFE PLACE model. Two therapists had doctoral degrees, one is in a doctoral program and one had a post-professional master's degree. The three therapists with doctoral education had over 30 years' experience each and the master's level therapist had 18 years' experience.

Methodology

All reviewers viewed the videos together over five 3-hour viewing sessions. One video was viewed each session and each rater independently recorded what they observed occurring during the viewed segment on the *SAFE PLACE Video Observation* form. The therapists then independently rated the session on the *SAFE PLACE Fidelity Measure.* Group discussion of impressions of the video then followed and field notes recorded. The *SAFE PLACE Fidelity Measure* is a document developed to articulate the seven core contextual factors and seven interpersonal factors of a SAFE PLACE intervention session.

The *SAFE PLACE Video Observation* forms were transcribed verbatim by a non-therapist research assistant and imported into the qualitative data analysis program, *QDA Miner Lite*. The primary investigator

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coded one segment as an example and to develop an initial codebook. Codes were divided by the person involved and codes were recorded based on how a given action was presented in the transcript. e.g. if a transcript said, "child engages with occupational therapist swinging on the bolster swing", the observation was coded as "child engages with occupational therapist". On the other hand if the transcript said, "occupational therapist engaged child while on the bolster swing", it was coded as "occupational therapist engages with child". The research assistant then proceeded to code transcripts from all reviewers. The PI later coded two additional videos (constituting 10% of the videos) for purposes of inter-rater reliability.

The research assistant codes were used for all further analysis. This initial coding process resulted in 305 codes. As a first step in consolidating and analyzing the codes, the PI examined the codebook and combined any codes that were redundant or believed to represent the same behavior. This resulted in 285 codes which were then examined by person and consolidated by themes. The themes were then compared across persons for similarities and differences which might represent general overarching themes used by all and those that were unique to the individual profession or parent or child. Keywords from individual person codes were used within themes to determine roles and behaviors that might vary by person.

In addition to examining codes for themes, the percentage of occurrences of the codes across samples was examined to determine which observations occurred most frequently. This information was further used to examine which behaviors might most represent SAFE PLACE.

Results

Fidelity. Four raters completed the *SAFE PLACE Fidelity Measure* on five video cases. Intra-class correlation found an ICC of .989 for the total instrument indicating excellent inter-rater reliability on the instrument. ICC's of .985 and .972 for the Contextual Factor and Interpersonal Factor sections respectively were also excellent. Scores on four of the five cases clustered together with scores between 45 and 56 out of a total of 56 points. One case was rated by all raters as not truly reflecting SAFE PLACE principles with scores between 19 and 25. Discussion about the fidelity measure and the videos indicated that the raters believed the fidelity measure should contain more ratings specific to the trauma processing component of the SAFE PLACE intervention.

Inter-Observer Agreement. Inter-observer agreement of codes recorded was examined among four raters of the video review. Across all categories percent agreement ranged from 79.9 to 93.8. Exact number of code agreements ranged from 67.2 to 82.7. These levels are considered adequate for qualitative research.

Themes. Examination of themes recorded during observation of the videos identified four overarching themes. The first theme was that of *Communication.* Across persons communications involved verbal and non-verbal communications that were directed at each other and in general. All persons communicated with each other and the child.

The second theme was *Management and Engagement of Activities.* All individuals participated in activities in some way. The occupational therapist and mental health professional tended to manage aspects of the activity such as presenting activities, assisting the child, changing activities, and hanging up equipment. The child engaged in activities and invited other to participate. Adults participated in child activities primarily at the child's invitation.

The third theme was *Expression of Emotion and Affect*. All individuals expressed emotions and varied affect during the sessions. The occupational therapist and mental health professional encouraged and praised the child, celebrating the child's achievements and generally expressing positive emotions through words and affect such as smiles and laughter. The parent also expressed emotions and affect, generally positive, but at times expressed refusals, upset, and distress. The child expressed a wide range of emotions and affect from increased or avoidant eye contact to screams to smiles and laughter.

The fourth and last theme was *Interpersonal Interactions.* In this theme, individuals were observed to move their physical placement in relation to others. This was done for a variety of reasons, to allow one person to have increased proximity to the child or

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equipment or to distance proximity. It also included interactions in close proximity such as touching the child. For the child and parent there were additional interactions involving non-engagement, rejection or ignoring, as well as approaching, accepting suggestions, and following.

Roles. Observations within each theme were next examined by participant. Key words/descriptors were identified to examine similarities and differences among participants.

Differences in roles among participants emerged through examination of the observations. First, there was a distinct difference in adult roles and the child roles as well as differences among each adult role. These varied by the individual themes as well as overall.

Within the *Communication* theme, all adults engaged in activities that were child directed and other adult directed. Child-directed communications that were present across adults included asking the child what they wanted, commenting on the child's performance and frequently singing to the child. Adult directed communications included talking about various topics and discussing problems and solutions. Within the therapist role, the occupational therapist and mental health professional both suggested activities to the parent and to the child. The parent role included agreeing to suggestions, listening, reporting on the child, requesting information, and watching the child. The occupational therapist's unique roles in communication primarily involved explaining activities and/or the child's sensory processing to the parent. The mental health professional's unique role primarily involved describing things the child had done, expressing concerns, instructing the child or parent, and verbally processing an event with the child.

Within the *Management and Engagement of Activities* theme all adults engaged in the child's activity through assisting the child on/off equipment and assisting with hanging up or taking down equipement. They all also engaged in the activity with the child at the child's request and bounced or moved swings as appropriate. The occupational therapist and mental health professional further presented new activates and modified activities as needed. The occupational therapist uniquely adjusted activities for success, encouraged the child's participation, explained how equipment or activities worked, set up activities, and facilitated the child's skill performance. The mental health professional uniquely helped with activities and stopped activities when needed. The parent periodically suggested changes to activities, interacted playfully with the child and occasionally engaged with the activity.

Within the *Expression of Emotion and Affect* theme, all adults celebrated and praised the child's successful performance and reassured the child regarding unsuccessful performance. Positive affect was expressed through smiles and laughter. The occupational therapist and mental health professional further acknowledged the child's performance, wants and needs. The parent role was characterized by both positive and negative emotions and affect from being animated and joyful to being quiet, distressed, and having a flat affect.

Lastly within the *Interpersonal Interaction* theme, all adults attended to the child and periodically touched or stroked the child. They also positioned themselves in close proximity to the child and periodically changed their position, especially to allow another person to change access to the child. The parent role further demonstrated positive interpersonal interactions of giving things to the child and holding the child and negative interactions of moving to far proximity to the child, refusing to engage in activities or simply not engaging with the child.

Frequency of Observations. Of the 285 codes, 32 were present in 40% or more of the cases rated. An additional 56 codes were present in between 20 – 39% of the cases. The top 32 codes reflected 11 child codes, 9 occupational therapist codes, 5 mental health professional codes, and 7 parent codes. By frequency of occurrence, these codes represented 61% of occurrences. See Table 1 for specific codes in order of frequency of occurrence in cases by role.

Support for SAFE PLACE Characteristics

The SAFE PLACE model has five primary characteristics: 1) it is a collaborative model of care, 2) is provided in a sensory-rich treatment space with flexible pairings of participants, 3) it implements core concepts of sensory integration, attachment, trauma, mindfulness, 4) parents are involved in sessions to

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support provision of emotional and physical safety, and 5) outcomes focus on occupational therapist-SI outcomes for the child, co-regulation and attachment repair between parent and child, and traumatic healing. This video review supported the presence of these characteristics in the sessions reviewed.

Table 1. Percent of occurrence of codes in cases by role

Role	Code	% Cases
Child	Child actively engages in/on equipment	96.4
	Child speaks or vocalizes	89.3
	Child verbally engages with adults	89.3
	Child changes activity	78.6
	Child in/on equipment	75.0
	Child physically engages in activity with MHP	67.9
	Child requests	67.9
	Child uses loud voice	53.6
	Child physically retreats	46.4
	Child need/wants control	46.4
	Child smiles	42.9
OT	OT engages in activity with child	92.9
	OT asks child question	89.3
	OT presents/sets up/invites activity for child	78.6
	OT talks	75.0
	OT provides positive verbal reinforcement of child activity	67.9
	OT comments on child action	64.3
	OT attends to child	53.6
	OT explains something to parent	53.6
MHP	MHP attends to child	71.4
	MHP gets on equipment/engages in child activity	64.3
	MHP asks child question	60.7
	MHP reassures/touches child	60.7
	MHP speaks	53.6
Parent	Parent comments	67.9
	Parent reports information	64.3
	Parent asks child question	64.3
	Parent strokes/touches child	53.6
	Parent engages in child activity	50.0
	Parent talks to child	42.9
	Parent attends to child	42.9

Characteristic 1: Collaborative Model of Care – This characteristic was supported by the presence of the occupational therapist, mental health professional, and parent working together with the child. Collaboration among members of the group was observed through all present frequently being engaged in a child activity together, (such as singing to the child or bouncing a swing). Verbal communications and sharing of information were also observed among all members of the team.

Characteristic 2: Sensory-Rich Environment with Flexible Pairings of Participants – This characteristic was supported with intervention that occurred within a sensory integration treatment space with a variety of sensory and motor activities. Flexible pairings of participants was observed at different times with various adults engaging with the child in activities and with other adults. Physical positions and proximity to the child were changed by participants to allow other participants to access or engage with the child. Verbal engagement between child and adult participants as well as between various adult participants was observed as well.

Characteristic 3: Implementation of Core Principles – This characteristic was supported for the four conceptual areas supporting SAFE PLACE: sensory integration, attachment, trauma and mindfulness. Sensory integration concepts were supported in the presentation of sensory-motor activities, modification of activities and child-lead activities particularly. Attachment principles were supported with encouragement of parent-child interactions and joint engagement in activities. Trauma intervention principles were supported through processing of emotions at various points in the session. Finally mindfulness concepts were present in joint attentiveness to the child, expressions of concern and support and positive emotions.

Characteristic 4: Parent Involvement in Sessions – This characteristic was supported through both occupational therapist and mental health practitioner providing positive modeling through support of the child's engagement in activities and interactions with the parent. Support for the parent was observed through both the occupational therapist and mental health practitioner explaining to the parent the child's needs and difficulties, discussing child's needs with parents,

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identifying and discussing strategies to meet the child's needs. The parent was supported to recount and report on the child's performance at home and to engage the child in the telling of the story. The parent was further encouraged by the occupational therapist and mental health practitioner to engage in the activities with the child.

Characteristic 5: Outcomes of Intervention – This characteristic was supported through observation of intervention outcomes within the session that reflected sensory integration processing, co-regulation and building attachment between parent and child, and progress toward traumatic healing. Sensory integration processing was observed through changes in the child's arousal level and self-regulation as well as the child's engagement in sensory-motor activities which promoted praxis and motor development. Co-regulation and attachment was observed through positive parent-child engagement in activities.

Conclusion

In summary, the core tenants of the SAFE PLACE intervention model are supported by this video review. Each participant in the intervention serves a unique role, although many tasks and behaviors are shared by all involved. The child-directed nature of the intervention, the use of sensorimotor-based activities, and the importance of positive inter-personal relationships with the child are especially highlighted.

Future studies will be needed to determine if these characteristics change over time during the course of the SAFE PLACE intervention. Of most interest will be to determine if interactions between parent and child change with the intervention as predicted as well as potential changes in the child's interactions. Another area of interest for future examination may be to see if the nature and type of sensory and motor activities engaged in by the child changes over time. Lastly, the cases used in this study represented isolated, single session use of SAFE PLACE principles. It will be useful to examine whether more overt trauma processing and related observations occur over a longer course of the SAFE PLACE intervention.

References

May-Benson, T. & Sawyer, S. (2016). *An intervention manual for SAFE PLACE.* Newton, MA: OTA The Koomar Center.

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