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Reports

Measurement of Satisfaction with Stanford CHIPAO in a Virtual Format

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Objectives

Although several attempts have been made to quantify the benefits of the Stanford Communication Health Interactive for Parents of Adolescents and Others (CHIPAO) program, evaluating the effectiveness of theatrical vignettes in a virtual format has not been attempted with the use of validated scales. Our study's purpose is to quantify the satisfaction rates clients experienced observing the Stanford CHIPAO program in a virtual format.

Methods

Thirty-seven subjects (pretest power analysis n = 34) of Asian ethnicity who were living in the United States (aged >35 years) and who had experience raising teenagers (children aged >10 years) were recruited via word of mouth. By videoconference, subjects watched a 4-minute video of a Stanford CHIPAO skit (topic: "Study Korean") that was produced by high school students and performed by professional actors. At the end of the interview, subjects were queried ("What were your impressions of the skit?") and completed a Client Satisfaction Questionnaire-4 (CSQ-4). We hypothesized that participants would find the virtual format much to their liking and would have significantly raised CSQ-4 scores above the minimum score of 4.

Results

With a maximum possible score of 16, participant CSQ-4 satisfaction scores ranged between 11 and 16 (mean: 13.5, SD: 1.92). Because all scores were above the 58th percentile of the questionnaire (mean: 79th percentile), it was clear that participants had very high satisfaction with the Stanford CHIPAO program in virtual format. At least 50 percent of respondents recalled personal experiences and/or discussed mediation after watching a virtual Stanford CHIPAO vignette.

Conclusions

Asian American parents reported high satisfaction with the Stanford CHIPAO program in virtual format. The virtual format thus appears suitable to facilitate mental health conversations among families. Important limitations of this study are that the subjects were volunteers and no controls were included. Replication studies with randomly selected subjects and inclusion of controls are needed to confirm our findings.

INTRODUCTION

Since its inception in 2015, the Stanford Communication Health Interactive for Parents of Adolescents and Others (CHIPAO) program has been developed by faculty at Stanford Medicine to address the stigma Asian communities have toward discussing mental health.[1-4] This program's development was a direct response to feedback the Stanford Center for Youth Mental Health and Wellbeing focus groups acquired in 2015, when parents identified difficulty discussing emotional topics with their adolescents.[1,2] This was particularly concerning given that, prior to the start of the

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Stanford CHIPAO program, 2 separate suicide clusters occurred from 2009 to 2015 in the Palo Alto region, and the majority of suicides were disproportionately Asian.[1,2]

Our program utilizes drama and theater to help resolve conflict and promote healthy communication skills.[1,2] Drama therapy has been received favorably as a means to address mental health stigma based on other qualitative studies and quantitative studies.[5-8] Drama therapy provides multiple tools, such as improvisational theater, role-playing games, and live action role-playing, that can be utilized to discuss mental health care.[7] Programs such as Yale CHATogether have utilized drama therapy to treat patients in an inpatient setting.[8]

In 2019, the COVID-19 pandemic restricted the ability to do live drama skits in person.[9] Attempts had been made to present the Stanford CHIPAO program in a virtual format.[1] Although several attempts have been made to quantify the benefits of the Stanford CHIPAO program,[6] the evaluation of the effectiveness of theatrical vignettes in a virtual format has not been attempted with the use of validated scales.

Our study's purpose is to quantify the satisfaction rates participants experience observing the Stanford CHIPAO program in a virtual format. We conducted a quantitative analysis of client satisfaction of the Stanford CHIPAO program (virtual format) using the Client Satisfaction Questionnaire-4 © (CSQ-4), a validated scale that measures participant satisfaction of a service using a 4-question survey, with the potential total scores ranging from 4 to 16 (higher scores indicating greater satisfaction).[10] We hypothesized that participants would have a significantly higher total satisfaction score than 1 on each domain of the CSQ-4.

METHODS

From May 2023 to June 2024, individuals of Asian ethnicity residing in the United States participated in our study. Subjects were recruited from the states of California, Michigan, Ohio, New Jersey, New York, Nevada, Texas, and Virginia via poster advertisement and word of mouth. All subjects had at least one child >10 years at the time of their interview so that all subjects had at least a decade of parenting experience. IRB approval of the study was obtained from Ventura County Medical Center. Consent from subjects to use their responses was obtained via DocuSign.

A total of 37 subjects were recruited (pretest power analysis: n = 34 using a one-sample *t* test based on whether subjects would report a score greater than 1 out of a max score of 4 for each of the domains of the CSQ-4). A one-sample *t* test is appropriate when assessing differences between a continuous-level variable and a hypothesized mean value.[11] The dependent variable corresponds to satisfaction total scores, as measured by the CSQ-4. Statistical significance for the one-sample *t* test was evaluated at the generally accepted level (α = .05). Demographics are noted in Table 1. Participants have lived in the United States from a range of 8 years to 50 years (Table 2).

Subjects were interviewed individually via videoconference. Subjects were shown a 4-minute video of a Stanford CHIPAO skit titled "Study Korean," (Figure 1) written by high school students and produced by professional actors and filmmakers who share Asian American backgrounds. This skit features a heated conversation between a Korean mother and her American-born son over the topic of learning the mother tongue language. A psychiatrist intervenes as a moderator to hear both perspectives, de-escalate the stressful conflict, and discuss alternative strategies. The scene transitions to show the mother and son employ the communication strategies previously discussed.

After watching the video, subjects were asked the question, "What were your impressions of the skit?" and were instructed to complete an online questionnaire asking for their demographics and the CSQ-4 on SurveyMonkey. Permission to use the CSQ-4 was obtained in advance from CSQScales®. English speakers filled out English versions of the survey and Korean speakers filled out Korean versions of the survey. Both versions of the scale asked the same questions in the same sequence. Interviews were conducted either by a psychiatrist or psychiatry resident in the event that participants encountered mental health difficulties or had questions about mental health while watching the skit.

A thematic analysis of the interviews was performed to evaluate the qualitative data. Audience responses were recorded and transcribed. The main points of their responses were identified and were quantified as a "yes/no" on all the themes that were brought up during the interviews.

The total satisfaction of the subjects was determined by the total scores reported on their CSQ-4 survey result. A score of 1 on a domain of the scale would indicate that the subject was completely dissatisfied with that domain of the scale. A score >2 on a domain of the survey indicated that clients were satisfied with that domain of the scale. The means of the scores for each category of the scale were calculated for the Korean-speaking subjects, English-speaking subjects, and total subjects. The mean satisfaction for all domains was calculated by adding the subjects' reported scores and dividing the sum by the number of subjects.

RESULTS

When asked "What were your impressions of the skit?" 59.46% of subjects recalled personal experiences, 51.35% of subjects discussed the mediation process that was demonstrated in the skit, and 48.65% of subjects discussed language learning processes. 35.14% of the subjects were fixated on the conflict displayed in the skit. Also, 32.43% of subjects reported that the scenario displayed in the skit was a "common situation" among Asian American families. Three (8.11%) subjects brought up the topic of mental health (Table 3).

Total satisfaction scores derived from 4 CSQ-4 survey questions ranged from 11 to 16, with a mean score of 13.49 and SD of 1.92 (Table 4, Figure 2). The findings of the one-sample *t* test were statistically significant ($t(36) = 29.99$, $P < .001$) with a large effect size (Cohen's $d = 4.93$).[12] Average scores for subjects in all domains were above a score of

Table 1. Frequency Table for Nominal-Level Variables

Variable	Group		
	English speakers (n = 16)	Korean speakers (n = 21)	Total subjects (n = 37)
Gender			
Female	10 (62.50%)	7 (33.33%)	17 (45.95%)
Male	6 (37.50%)	14 (66.67%)	20 (54.05%)
Ethnicity			
Korean	10 (62.50%)	19 (90.48%)	29 (78.38%)
Vietnamese	4 (25.00%)	0 (0.00%)	4 (10.81%)
Asian	0 (0.00%)	2 (9.52%)	2 (5.41%)
Mixed	2 (12.50%)	0 (0.00%)	2 (5.41%)
Age			
35–44	1 (6.25%)	2 (9.52%)	3 (8.11%)
45–54	8 (50.00%)	11 (52.38%)	19 (51.35%)
55–64	3 (18.75%)	5 (23.81%)	8 (21.62%)
65+	4 (25.00%)	3 (14.29%)	7 (18.92%)
Total number of kids			
1	2 (12.50%)	5 (23.81%)	7 (18.92%)
2	9 (56.25%)	12 (57.14%)	21 (56.76%)
3	4 (25.00%)	4 (19.05%)	8 (21.62%)
4	1 (6.25%)	0 (0.00%)	1 (2.70%)

Table 2. Summary Statistics for Years Living in the United States

Variable	n	Min	Max	M	SD
Years in the United States					
English speakers	16	23.00	50.00	39.75	8.96
Korean speakers	21	8.00	43.00	22.10	10.06
Total subjects	37	8.00	50.00	29.73	12.97

Figure 1. "Study Korean" Stanford CHIPAO Skit

2. All subjects' scores were above the 58th percentile of the questionnaire (mean: 79th percentile).

DISCUSSION

Based on our CSQ-4 results, it was clear that the Asian American parents had very high satisfaction with the Stanford CHIPAO program in virtual format. Based on our qualitative analysis, nearly one-half of the participants indicated that the "Study Korean" vignette made them recall personal experiences, consider family mediation strategies, and consider language learning processes. One-third of the participants discussed the nature of the conflict presented and admitted that the scenario presented was a common situation. Participants also identified potential improvements to the components of the vignette, such as the age of the actor who played the son or the mother not speaking to her child in her native language. Three out of the 37 subjects discussed mental health. This result may have been influenced by the investigator's choice of video that was presented to them.

Virtual theatrical vignettes are a promising development to integrate into future clinical psychology interventions. Our study demonstrates that it is a potentially effective

Table 3. Frequency Table for Thematic Responses

Variable	n	% of Respondents[a]
Responses		
Recalled personal experiences	22	59.46
Discussed mediation	19	51.35
Discussed language learning process	18	48.65
Discussed conflict	13	35.14
Common situation	12	32.43
Discussed differences in generational experiences	4	10.81
Child actor is too old	4	10.81
Discussed mental health	3	8.11
Mother speaking in English instead of Korean	3	8.11
Enjoyed skit	2	5.41
Stated presentation was not applicable to the present because learning Korean is more popular currently	2	5.41
Didn't agree with Mom presented in video	2	5.41
Discussed importance of having good relations with children	2	5.41
Unsure how realistic the solution in the video was presented	2	5.41
Discussed need for children to find their own motivation	1	2.70
Complimented actors	1	2.70
Questioned whether they were appropriate for the study	1	2.70
Acting is not realistic	1	2.70
Could empathize with the situation	1	2.70
Relatable	1	2.70
Video was well made	1	2.70
Discussed general learning process	1	2.70

[a]Percentages do not sum to 100% because there was an overlap in responses.

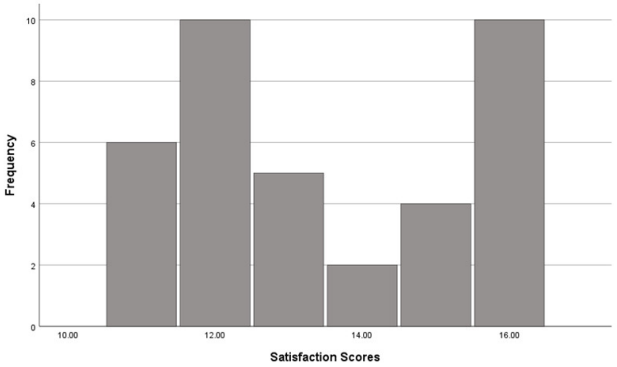

Figure 2. Histogram for Satisfaction Scores

tool to reduce stigmatization of mental health conversations among Asian families in the United States due to participants' ability to relate with a Stanford CHIPAO skit and their overall satisfaction with the program. Further areas of research may include investigating the generalizability of this intervention for other ethnic communities. The limitations of this study were that the subjects were volunteers and no controls were included. Replication studies with randomly selected subjects, and inclusion of controls, are needed to confirm our findings.

Take Home Summary

The Stanford CHIPAO program's vignette "Study Korean" was met with satisfaction from parents of Asian American families in the United States. Our study supports the use of virtual theatrical interventions to promote more active mental health conversations in vulnerable ethnic communities.

ABOUT THE AUTHORS

Goeun Lee, BS, is a Postgraduate Research Associate at Yale School of Medicine, contributing to addiction research. She graduated from Yale University and majored in Psychology and Global Health Studies. She has been a part of Dr. Ha's Stanford CHIPAO Research Team since she was a high school student.

Table 4. Summary Statistics for Responses to CSQ-4

Variable	English speakers (n = 16)		Korean speakers (n = 21)		Total subjects (n = 37)	
CSQ-4 Survey questions	M	SD	M	SD	M	SD
CSQ1 - To what extent has our service met your needs?	3.06	0.77	3.48	0.60	3.30	0.70
CSQ2 - Have the services you received helped you deal more effectively with your problems?	3.44	0.51	3.52	0.51	3.49	0.51
CSQ3 - If you were to seek help again, would you come back to our services?	3.31	0.48	3.24	0.54	3.27	0.51
CSQ4 - In an overall, general sense, how satisfied are you with the service you received?	3.38	0.50	3.48	0.51	3.43	0.50
Satisfaction total	13.19	2.01	13.71	1.87	13.49	1.92

Claire Bahk is an undergraduate student at the University of Michigan studying biomedical engineering and is a research assistant in the Shikanov Lab. She is interested in women's health and pursuing a career in medicine.

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DISCLOSURE

The authors have reported no biomedical financial interests or potential conflicts of interest.

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