

THE REAL-TIME IMPACTS OF ANONYMOUS DIGITAL PEER SUPPORT ON YOUTH EMOTION REGULATION AND WELLBEING: INSIGHTS FROM THE *LET’S TALK* PLATFORM

Oh, S.¹, Tan, E.¹, Liu, J. C.¹, Tan, C.², Heaukulani, C.², Kampman, O.², Hoosainsah, H.², Hong, X.², Cheok, C.², Agoramurthy, S.¹, Weng, J.²
¹Centre for Evidence and Implementation, ²Ministry of Health Office for Healthcare Transformation

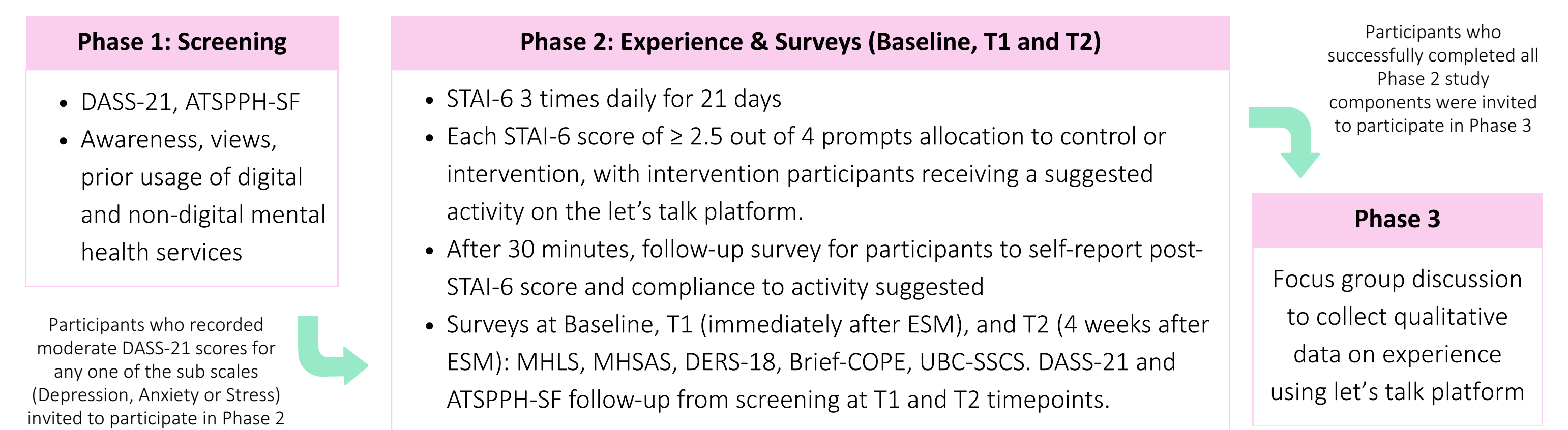
INTRODUCTION

let’s talk is a youth digital peer support platform designed by the Ministry of Health Office of Healthcare Transformation (MOHT) as a joint initiative with the Ministry of Social and Family Development (MSF), National Council of Social Service (NCSS) and Institute of Mental Health (IMH). It aims to provide digital mental health support for youths, providing opportunities to exchange mental health advice, information, and stories with other users, trained and certified peer supporters and befrienders. The platform also hosts an ‘Ask-a-Therapist’ feature where users can pose questions to a panel of qualified mental health professionals (verified counsellors) and receive a response within 24 hours. It is therefore an ideal case study to (i) examine the real-time effects of digital peer support and professional guidance, and to (ii) explore how anonymous online interactions can influence emotion regulation and wellbeing amongst youths. This longitudinal study therefore employs an experience sampling method (ESM) to understand the user experience and effectiveness of the let’s talk platform on youth emotion regulation and wellbeing through examining platform usage patterns of participants, mental health literacy and attitudes towards help-seeking behaviour, coping skills and emotion regulation, and psychosocial outcomes.

STUDY DESIGN

Recruitment & Eligibility: Participants were recruited through a combination of targeted and public outreach strategies. Participants had to be aged 18 to 25 years (21 to 25 years for non-NUS students), have lived in Singapore for at least two years, have not received a formal diagnosis of a psychiatric disorder and not be currently receiving any form of mental health treatment (e.g. counselling) at the point of screening.

Study Procedures: Participants filled in online surveys hosted on Qualtrics, consisting of a combination of the following scales: the 35-item Mental Health Literacy Scale (MHLS),¹ 9-item Mental Help Seeking Attitudes Scale (MHSAS),² Attitudes Toward Seeking Professional Psychological Help short form (ATSPPH-SF),³ 28-item Stigma Scale,⁴ Difficulties in Emotion Regulation Scale (DERS-18),⁵ Coping Orientation to Problems Experienced Inventory (Brief-COPE),⁶ Depression, Anxiety and Stress Scale (DASS-21)⁷ and the UBC State Social Connection Scale (UBC-SSCS).⁸



RESULTS

After screening for eligibility based on DASS-21 scores in the Phase 1 screening survey, a total of 104 participants were successfully onboarded for participation in Phase 2. From Table 1, compared to the resident population, our sample was matched in education and household type ($\leq 10\%$ difference). However, participants were more likely to be female (72.1% vs 50.7%), and less likely to be Malay (1.0% vs 15.1%).⁹

1 Average subclinical experience of youth participants

Table 2. Breakdown of STAI-6 scores recorded across study period	
STAI-6 Score	No. of responses out of total (n=6593)
Low	5230
Moderate Anxiety ($\geq 2.5/4$)	1363

Out of all (n=6593) STAI-6 responses retrieved from participants across the 21-day study period, approximately 1 in 5 (20.67%) were flagged as episodes of moderate state-trait anxiety.

There was a significant difference in STAI-6 scores recorded on weekdays and weekends at $p < .001$, with weekends generally recording lower STAI-6 scores [Mean (SD): Weekday: 12.1 (3.62); Weekend: 11.5 (3.56)], though with small effect (-0.39).

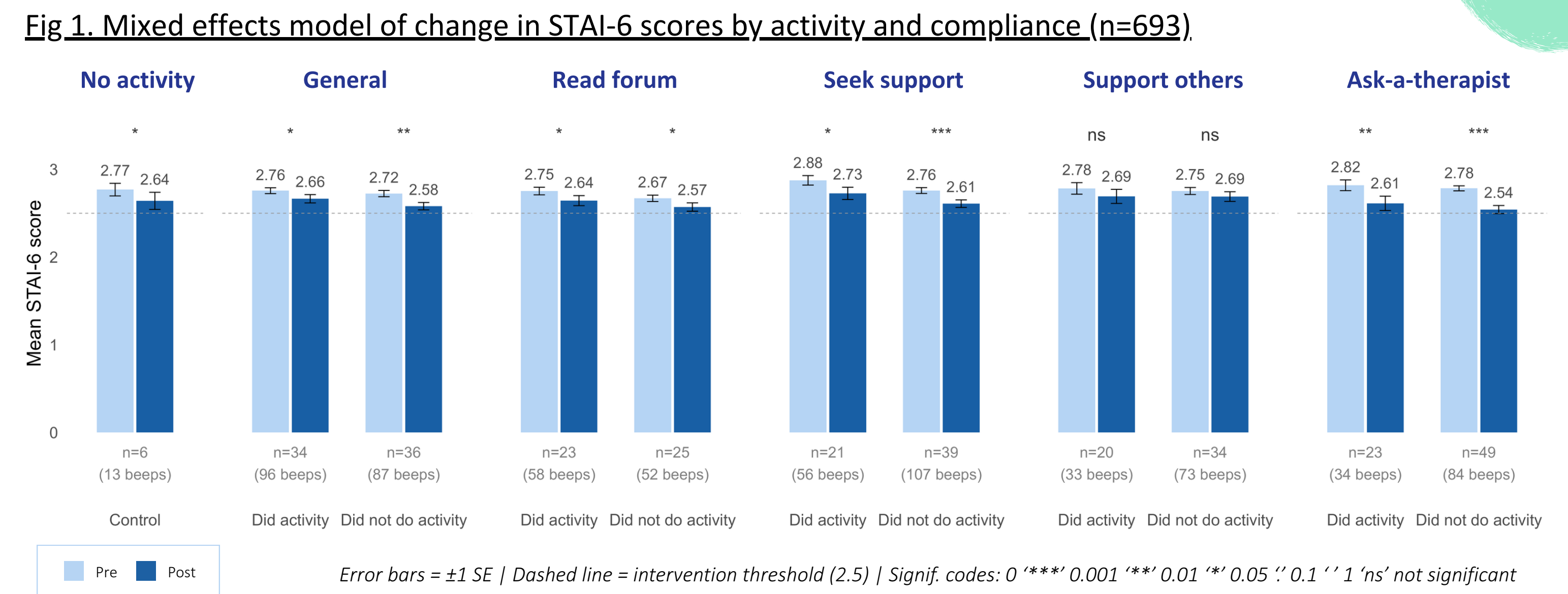
No significant relationship was found between baseline DASS-21 scores and the proportion of moderate state-trait anxiety episodes recorded per participant over the study period.

2 Naturalistic observations of intervention usage and uptake

Table 3. Breakdown of self-reported intervention usage						
Completed assigned activity						
	Activity	No		Yes		Total
		n	%	n	%	
	Incomplete / Missing	2				2
Intervention	Ask-A-Therapist Channel	96	72.70%	36	27.30%	132
	General message to explore let's talk forum	97	49.20%	100	50.80%	197
	Post on the let's talk forum to seek support	117	67.20%	57	32.80%	174
	Post on the let's talk forum to support others	81	69.20%	36	30.80%	117
	Read the let's talk forum	56	46.70%	64	53.30%	120
Control	I was not suggested an activity	-	-	-	-	17
	Grand Total	449	59.20%	293	38.60%	759

Of participants who recorded moderate STAI-6 scores and were suggested an activity, only 2 in 5 reported that they had completed their assigned activity. Activities that required less effort (e.g. exploring the site, reading forum posts) reported higher compliance rates (~50%) compared to those that required active posting (~30%) (e.g. crafting an original post on the forum or replying to other posts).

ANALYSIS



Across all participants and activities, there was a significant decline in STAI-6 scores ($\beta = -0.18$, $SE = 0.02$, $t(X) = -7.18$, $p < 0.001$), indicating a general reduction in state-trait anxiety as an effect of time. Across activities assigned to participants, most recorded significant improvement in STAI-6 scores, minimally at $p < 0.05$. However, there was no significant difference in the pre-post decline in STAI-6 scores across compliance groups ($\beta = -0.0246$, $SE = 0.0353$, $p = .456$), suggesting that interaction with the platform did not produce differential improvements in state-trait anxiety beyond those in the control or non-compliant group.

3 Change in baseline measures

Table 4. Mixed effects model of change in measures across baseline, screening, T1 and T2 timepoints												
Mental Health Literacy and Attitudes				Coping Skills & Emotion Regulation				Psychosocial Symptoms				
Predictors	(1) MHLS	(2) MHSAS	(3) ATSPPH-SF	(4) Stigma Scale	(5) DERS-18	(6) Brief-COPE	(7) DASS-21	(8) UBC-SSCS				
Time (vs. time = 0)												
Time = 1	0.59 (0.76)	-0.03 (0.07)	0.73 (0.37).	-0.64 (0.85)	-1.86 (0.74)*	-0.43 (0.38)	-1.14 (0.46)	-0.25 (0.28)	-2.59 (0.78)**	-2.65 (0.70)***	-2.19 (0.68)**	-0.03 (0.61)
Time = 2	0.79 (0.77)	0.15 (0.08)*	0.84 (0.38)*	-0.94 (0.86)	-2.04 (0.75)**	0.41 (0.39)	-0.43 (0.47)	-0.53 (0.28).	-3.10 (0.80)***	-2.72 (0.71)***	-2.72 (0.69)***	0.28 (0.62)

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1 | With reference to Time = 0 (Screening or Baseline)

Mixed-effects models examined changes in mental health literacy and attitudes, coping skills and emotion regulation, and psychosocial symptoms across three time points. Significant improvements in depression, anxiety and stress (DASS-21) were observed at both T1 and T2 (T1: minimally at $p < 0.01$; T2 all at $p < 0.001$) while improvement in emotion regulation (DERS-18) was observed at $p < 0.01$ at T2. Significant improvement in attitudes towards help-seeking behaviour was observed by T2 at $p < 0.01$, but not at T1.

DISCUSSION

The findings show a significant decrease in depression, anxiety, and stress symptoms across the 21-days. However, the role of the let’s talk platform in driving these improvements requires careful interpretation. Anxiety, as measured by STAI-6, decreased across all activity categories, including those who did not complete their assigned activities and the control group that was not assigned any activity. This suggests that time may account for the immediate reduction.

Despite the lack of a differential intervention effect on state-trait anxiety, sustained improvements in DASS-21 subscales (depression, anxiety, stress) and DERS-18 (emotion regulation) at both T1 and T2 suggest that cumulative platform exposure may result in potentially longer-term benefits. The significant improvements in ATSPPH-SF at T2, but not at T1, also suggest that shifts in attitudes toward professional help-seeking may require repeated engagement over time. Outcomes related to coping (Brief-COPE), mental health literacy (MHLS), stigma and social connectedness (UBC-SSCS) did not change significantly. This may be due to recruitment of participants with subclinical rather than clinical-level symptoms which may have resulted in ceiling effects.

The lower compliance with active posting activities (~30%) compared to passive consumption (~50%) has practical implications for platform design. Interventions that reduce the effort required for engagement may have improved uptake, and in turn, effectiveness. Notably, being assigned an activity that involved creating a post to support others on the forum produced no significant improvement in state-trait anxiety. Furthermore, the significant weekday-weekend difference in STAI-6 scores signals contextual stressors such as academic or work stressors. These could be targeted to help strengthen just-in-time support delivery.

Several limitations should be noted. The sample was predominately female and less likely to be Malay, which limits generalisability to the broader Singapore youth population. Moreover, the absence of an active control group makes it difficult to attribute observed symptom improvements to the platform rather than to natural symptom trajectory or a Time x Intervention interaction effect. Further studies should incorporate a randomised design to better identify platform-specific effects.

References

- O'Connor, M., & Casey, L. (2015). The Mental Health Literacy Scale (MHLS): A new scale-based measure of mental health literacy. *Psychiatry research*, 229(1-2), 511-516.
- Cantril, H. (1965). *The Pattern of Human Concerns* (Rutgers University Press, 1965).
- Hammer, J. H., Parent, M. C., & Spiker, D. A. (2018). Mental Help Seeking Attitudes Scale (MHSAS): Development, reliability, validity, and comparison with the ATSPPH-SF and IASMHS-PO. *Journal of counseling psychology*, 65(1), 74.
- Elhai, J. D., Schweinle, W., & Anderson, S. M. (2008). Reliability and validity of the attitudes toward seeking professional psychological help scale-short form. *Psychiatry research*, 159(3), 320-329.
- King, M., Dinos, S., Shaw, J., Watson, R., Stevens, S., Passetti, F., Weich, S., & Serfaty, M. (2007). The Stigma Scale: development of a standardised measure of the stigma of mental illness. *The British Journal of Psychiatry*, 190(3), 248-254.
- Victor, S. E., & Klonsky, E. D. (2016). Validation of a brief version of the difficulties in emotion regulation scale (DERS-18) in five samples. *Journal of psychopathology and Behavioral Assessment*, 38(4), 582-589.
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief cope. *International journal of behavioral medicine*, 4(1), 92-100.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour research and therapy*, 33(3), 335-343.
- Lok, I., & Dunn, E. (2023). The UBC state social connection scale: Factor structure, reliability, and validity. *Social Psychological and Personality Science*, 14(7), 835-844.
- Department of Statistics. (2025). Population in Brief 2025. https://www.population.gov.sg/files/Population_in_Brief_2025.pdf