RCT Cloud IM i-ACT for Life **At-Risk Young Adults** COVID-19



















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Mental health issues during pandemic

- The global prevalence of mental health issues in the general population has increased significantly since the start of the COVID-19 pandemic.¹
- Psychological impact of the pandemic is expected to outlast the current viral outbreak², with societies facing economic contraction, limited mental healthcare resources, and dramatically changed lifestyles.³
- Globally, the burden of mental disorder falls most heavily on young adults.⁴
- The social and economic disruptions of the pandemic stand to exacerbate these stressors of young adulthood, putting an already vulnerable population at higher risk.⁵
- In Malaysia, a majority of those affected are university students⁶, citing financial constraints, remote learning, and future uncertainty as some of the most prominent pandemic-specific stressors.⁷

Digital mental health interventions

- The pandemic has challenged the ways of modern healthcare delivery, and remote methods of delivering evidence-based mental healthcare are more important now than before.⁸
- Digital mental health interventions (DMHI) have already been lauded for its ability to reduce cost, transcend physical limits, and increase flexibility and autonomy of users⁹, making its use arguably vital in managing the mental health impact of the pandemic.
- Novel methods to introduce preventative mental health interventions are needed to reduce the strain on Malaysia's already overburdened mental healthcare system.¹⁰

Protective factors of psychological distress

- Several protective factors have been identified that can help mitigate the psychological distress associated with COVID-19, and these include psychological flexibility¹¹, self-compassion¹², and resilience¹³.
- Acceptance and Commitment Therapy (ACT) not only targets development of these resources, but also heavily features cognitive behavioural and mindfulness strategies, both of which have been emphasised for use during the pandemic^{14,8}
- As a transdiagnostic, acceptance- and mindfulness-based behavioural approach, ACT can be particularly useful in helping individuals foster awareness, accept difficult internal experiences, and pursue personal values, even amidst COVID-19 adversity¹⁵

Objective

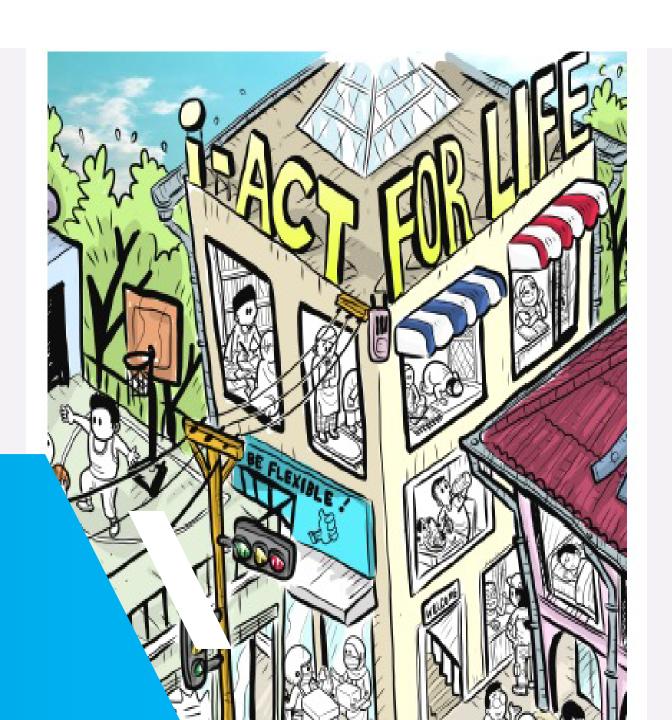
A randomised trial to evaluate the effectiveness of an Islamic psychospiritual ACT-based prevention program for at-risk young adults during the COVID-19 pandemic

Aims of the study:

- To develop i-ACT for Life prevention program integrating Islamic spiritual elements + ACT concepts
- To investigate the effectiveness of *i-ACT for Life*, using a cloud-based instant messaging, in reducing psychological distress and improving the psychological flexibility, self-compassion, and resilience of at-risk young adults in Malaysia during the COVID-19 pandemic.

Methodology

Module Development
Pilot Study
RCT



Doing What Matters in Times of Stress:

An Illustrated Guide²⁵





i-ACT For Life

A prevention module featuring integrated elements of Islamic Spirituality and 26 Acceptance and Commitment Therapy (ACT)



Jamilah Hanum Abdul Khaiyom, Amani Fadzlina Abdul Aziz, Ahmad Nabil Md Rosli, Che Amnah Bahari, Nur Sakinah Thomas Abdullah







No	Module	Summary/Aim	Example of ACT Exercise		Example of Islamic Psychospiritual Elements
1.	Grounding	Noticing thoughts and feelings, slowing down and connecting with the body, and paying attention to the present moment.	Mindful breathir exercises	5	Khushu' mindful dhikr and mindful wudū exercises
2.	Unhooking	Noticing and naming difficult thoughts or feelings and then distancing from them.	Notice, Name, an Refocus 3-ste exercise		Reflections on relevant Quranic verses (al- Baqarah 2:216) and authentic hadith (Sahih al- Bukhari, Hadith 2528)
3.	Acting on Your Values	Choosing values that are important and picking one small way to act according to these values.		l ,	Reflections on relevant Quranic verses (al- Baqarah 2:177 and value- setting as a Muslim
4.	Being Kind	Noticing pain in the self and others and responding with kindness.	Self-talk kindnes exercise	;	Reflections on relevant Quranic verses (Maryam 19:47) and authentic hadith (Sahih al-Bukhari, Hadith 13 & Sunan Abi Dawud, Hafith 494)
5.	Making Room	Noticing and naming difficult thoughts or feelings and allowing them to come and go.	Making rooi breathing exercis		Reflection on authentic hadith (al-Nawawi, Riyad al-Salihin, 927 & Sahih Musli, 924) Reflection on Rumi's 'The Guest House'

Micro-content:

- Infographic
- Interactive exercise
- Audio guided mindfulness exercises
- Psychoeducation videos



Development and pilot study of an Islamic psychospiritual Acceptance and Commitment Therapy-based prevention program (i-ACT for LifeTM) for at-risk young adults in the COVID-19 pandemic

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Introduction

Young adults in Malaysia show high risks of psychological distress during the pandemic (Wong et al., 2021). Preventive interventions are important and needed to avoid an increase of mental disorders amongst young adults in the upcoming years. Digital mental health interventions are a cost-effective, convenient, and accessible way to address mental health issues among youth without burdening the mental healthcare system (Ebert et al., 2017). Acceptance and Commitment Therapy (ACT) involves cognitive-behavioural and mindfulness strategies that are useful for coping with pandemic-related distress (Ho et al., 2020). Integrating ACT with elements of Islamic spirituality is appropriate for Malaysia Muslim majority population, and can help promote short-term and long-term positive religious coping amidst the ongoing pandemic.

Objectives

- Describe the development of i-ACT for LifeTM, an online modular prevention program for young adults – integrated elements of ACT & Islamic psychospirituality.
- Report acceptability, appropriateness, & feasibility of i-ACT for Life™ based on a small-scale pilot study.

Method

Development of i-ACT for Life™

- Adapted based on existing World Health Organization module (WHO, 2020) - supplement with additional techniques from established ACT & positive psychology protocols.
- Integrated Islamic psychospirituality based on conceptual similarities - e.g., Quranic verses, hadith, dhikr
- Developed with guidance of experts from fields of clinical psychology, psychiatry, Islamic studies, & linguistics.
- Consists of 5 weekly modules each corresponding to a core ACT process (Table 1). Each module comprises 10-15 minute daily exercises designed for delivery through instant messaging platforms.

Table 1. Summary of i-ACT for Life™ modules

Module (ACT process)	Summary of content/exercises
Grounding (Present-moment awareness)	Mindful breathing, mindful dhkir, mindful wudhu' exercises
Unhooking (Cognitive defusion)	Interactive psychoeducation quizzes; Quran, hadith and video reflection exercises
Acting on Values (Values)	Interactive psychoeducation quizzes; Quran and video reflection exercises, value-setting exercise
Being Kind (Committed action)	Video and hadith reflection exercises; audio- guided self-compassion exercise
Making Room (Acceptance)	Interactive psychoeducation quizzes; video, hadith, and poem reflection; audio-guided exercise

Pilot study

Design

· Quasi-experimental one group design.

Measures/Instruments

- Acceptability of Intervention Measure (AIM), Intervention <u>Appropriatness</u> Measure (IAM), Feasibility of Intervention Measure (FIM)
- Depression, Anxiety, Stress Scales (DASS-21)
- · Acceptance and Action Questionnaire (AAQ-II)
- Self-Compassion Scale (SCS)
- · Brief Resilience Scale (BRS)
- Open-ended questions feedback and perceived helpfuless of program

Participants and Procedure

- 5 undergraduates conveniently sampled for one-week condensed pilot run of prevention program.
- Modules delivered daily through Telegram, web-based instant messaging platform.

Results

Table 2. Implementation outcomes (Maximum score is 5)

	Acceptability M (SD)	Appropriateness M (SD)	Feasibility M (SD)
Grounding	4.40 (0.78)	4.35 (0.72)	4.95 (0.13)
Unhooking	4.75 (0.43)	4.65 (0.55)	4.90 (0.14)
Acting on Values	4.40 (0.65)	4.70 (0.54)	4.90 (0.14)
Being Kind	4.85 (0.22)	4.50 (0.47)	5.00 (0.00)
Making Room	4.60 (0.89)	4.80 (0.45)	4.95 (0.11)
i-ACT for Life™	4.50 (0.35)	4.60 (0.38)	4.80 (0.33)

Table 3. Mental health outcomes

	Pre-Intervention M (SD)	Mid-Intervention ^a M (SD)	Post-Intervention M (SD)
Stress	14.00 (0.33)	11.00 (7.02)	5.20 (5.21)
Anxiety	10.80 (6.42)	6.50 (5.26)	5.20 (1.10)
Depression	7.60 (6.39)	6.50 (1.91)	5.20 (3.35)
Psychological inflexibility	27.60 (12.36)	26.00 (9.41)	19.60 (8.69)
Self-compassion	3.19 (0.70)	3.17 (0.34)	3.61 (0.50)
Resilience	3.43 (0.86)	3.63 (0.44)	3.70 (0.75)

^aSample size at mid-intervention, n=4

Qualitative feedback

- Minor adjustments to module content were suggested to improve usability and engagement.
- Program was helpful in improving coping skills in participants.

Conclusion

Despite a small sample, the study showed that j-ACT for Life™ was acceptable, appropriate, and feasible for use, and was successful in achieving program objectives. Results support a full-scale 5-week implementation to test for program effectiveness in preventing distress in young adults during the COVID-19 pandemic.



Wong et al. (2021). Escalating progression of mental health disorders during the COVID-19 pandemic: evidence from a nationwide survey. PLOS One, 16(3), e0248916.

Ebert et al. (2017). Prevention of mental health disorders using internet- and mobile-based interventions: a narrative review and recommendations for future research. Frontiers in Psychiatry, 8. https://doi.org/10.3389/fpsyt.2017.00116
Ho et al. (2020). Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. Annals of the Academy of Medicine Singapore, 49(3), 155–160.
World Health Organization. (2020). Doing what matters in times of stress: an illustrated guide. World Health Organization.

1-ACT FOR LIFE™

Participants

Sample size determination:

- Use effect sizes by Thompson et al. (2020) meta-analysis of internet-based ACT treatments
- 57 sample was sufficient to detect significant betweengroup effects at .80 power using ANCOVA.

Inclusion criteria:

- Young adults undergraduate or postgraduate students in Malaysian HEP,
- 18-29 years old,
- Moderate and above for either one subscales of DASS-21,
- Muslim,
- Electronic gadget with Internet access,
- Read and understand English

Exclusion criteria:

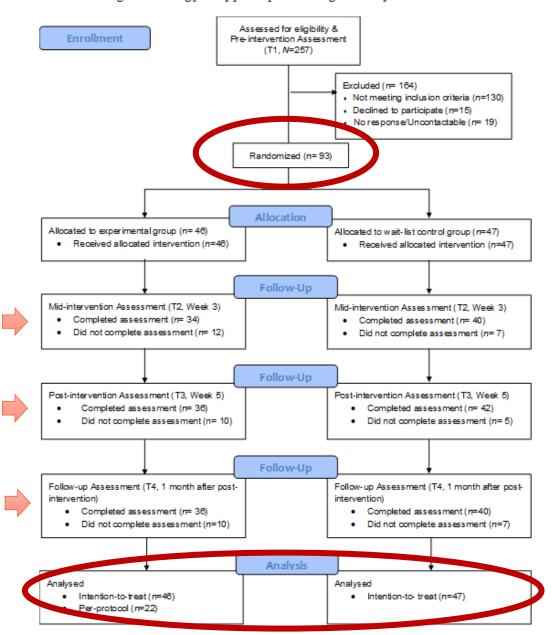
- Self-reported past or present diagnosis of a mental and/or neurological disorder,
- Previous experience with a modular ACT-based treatment with Islamic elements,
- Experiencing active suicidality at time of screening,
- Involved in any form of psychiatric or psychological treatment

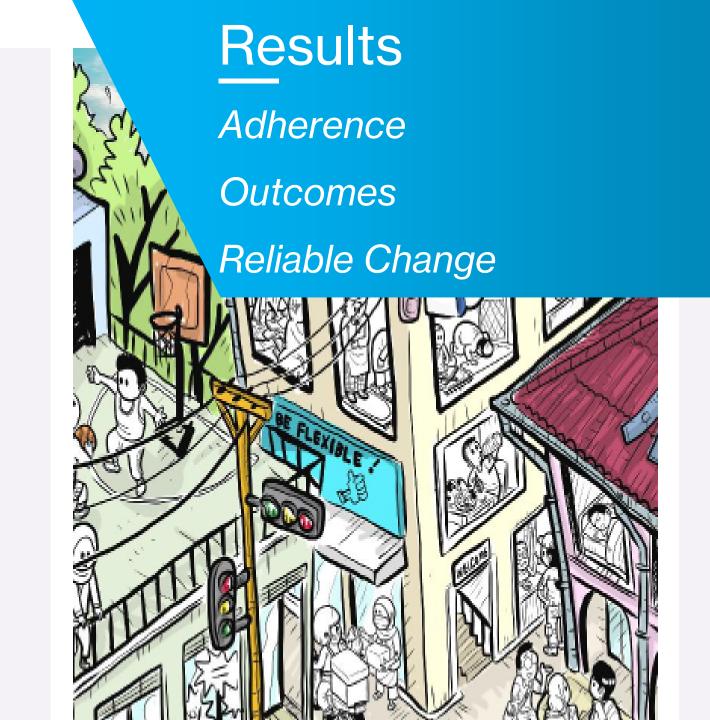
ISLAMIC ACT-BASED PREVENTION PROGRAM

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CONSORT diagram showing flow of participants throughout study duration.

Figure 1





Adherence

- Adherence for the first two weeks was high (80.43%) yet was not full.
- The adherence rates declined throughout the 5-week duration, with only 30 participants (65.22%) submitting a weekly reflection for the final week of the prevention program.
- Of the 46 participants who received the program, only 22 submitted reflections for each weekly module.
- Of these 23, only 14 reported to have engaged in at least 4 exercises per week.
- Throughout the whole program, 3 participants did not submit any weekly reflections at all.

Outcomes

A randomised trial to evaluate the effectiveness of an Islamic psychospiritual ACT-based prevention program for at-risk young adults during the COVID-19 pandemic

- Repeated measures ANOVAs show significant improvements over time for primary and secondary outcomes in the experimental group (p<0.001), whereas no significant changes were reported by the control group.
- Per protocol analyses on the completer sample showed similar improvements in all primary and secondary outcomes across the four time points.

ISLAMIC ACT-BASED PREVENTION PROGRAM

Table 10

Results of ANCOVAs comparing the two groups for all outcomes at mid-intervention (T2), post-intervention (T3), and 1-month follow-up (T4).

			T2			T3	T4				
	Fb	р	η _p ² [90% CI]	F⁰	р	η _p ² [90% CI]	F ^b	р	p² [90% CI]		
Anxiety	6.54	.012	.07 [.01, .17]	11.67	.001	.13 [.03, .23]	17.65	<.001	.18 [.06, .28]		
Stress	12.35	.001	.13 [.04, .23]	14.46	<.001	.15 [.05, .25]	14.47	<.001	.15 [.05, .25]		
Depression	2.42	.124	.03 [.00, .10]	8.55	.004	.09 [.02, .19]	8.71	.004	.10 [.02, .1/]		
Self-Compassion	1.58	.212	.02 [.00, .09]	9.16	.003	.10 [.02, .20]	11.78	.001	.13 [.03, .23]		
Self-Kindness	0.13	.722	.002 [.00, .04]	4.23	.043	.05 [.00078, .13]	7.22	.009	.08 [.01, .18]		
Self-Judgement	3.12	.081	.04 [.00, .12]	8.76	.004	.10 [.02, .19]	9.72	.003	.11 [.02, .21]		
Common Humanity	0.009	.923	<0.001 [.00, .01]	3.81	.054	.04 [.02, .19]	1.77	.187	.02 [.00, .09]		
Isolation	0.49	.488	.01 [.00, .06]	1.10	.297	.01 [.00, .08]	3.01	.086	.04 [.00, .11]		
Mindfulness	0.64	.426	.01 [.00, .06]	4.04	.048	.05 [.00024, .12]	5.42	.022	.06 [.0045, .15]		
Overidentification	0.38	.542	.01 [.00, .05]	11.63	.001	.12 [.03, .23]	9.36	.003	.10 [.02, .20]		
Psychological Flexibility	1.99	.163	.02 [.00, .10]	12.86	.001	.14 [.04, .24]	10.42	.002	.11 [.03, .21]		
Resilience	4.06	.047	.05 [.0003, .13]	9.438	.003	.10 [.02, .20]	4.92	.029	.06 [.003, .14]		

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Primary and Secondary Outcomes for Experimental Group

40 35 30 25 20 15 10 Mid Follow-Up Pre Post

-- Psychological Flexibility -- Resilience

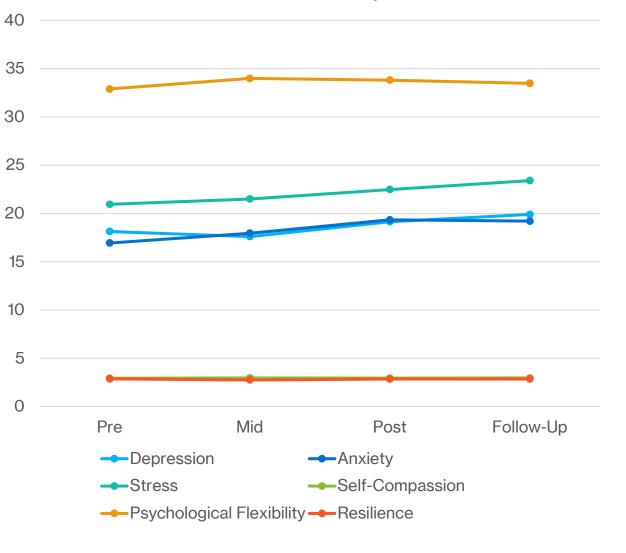
Anxiety

-Self-Compassion

—Depression

Stress

Primary and Secondary Outcomes for Control Group



Reliable Change

		Cor	nplet	ers (n =	22)		Non-completers (n=24)					
Depression	Mid]			Post Follow-Up			Mid		Post		Follow-Up	
	n	%	n	%	n	%	n	%	n	%	n	%
Reliable Improvement	7	30.43	6	26.09	9	39.13	3	13.04	6	26.09	5	21.74
No reliable change	15	65.22	16	69.57	12	52.17	7	30.43	7	30.43	8	34.78
Reliable Deterioration	1	4. 35	1	4.35	1	4.35	1	4.35	0	0.0	1	4.35

		Non-completers (n=24)										
Anxiety	Mid		Post		Follow-Up		Mid		Post		Follow-Up	
	n	%	n	%	n	%	n	%	n	%	n	%
Reliable Improvement	6	26.09	7	30.43	7	30.43	4	17.39	6	26.09	7	30.43
No reliable change	17	73.91	16	69.57	15	65.22	7	30.43	6	26.09	6	26.09
Reliable Deterioration	0	0.0	0	0.0	0	0.0	0	0.0	1	4.35	1	4.35

		Cor	mplet	ers (n =	22)		Non-completers (n=24)						
Stress	Mid		Post		Follow-Up		Mid		Post		Follow-Up		
	n	%	n	%	n	%	n	%	n	%	n	%	
Reliable Improvement	4	17.39	7	30.43	7	30.43	5	21.74	6	26.09	8	34.78	
No reliable change	17	73.91	14	60.87	14	60.87	6	26.09	6	26.09	5	21.74	
Reliable Deterioration	2	8.70	2	8.70	1	4.35	0	0.00	1	4.35	1	4.35	

i-ACT For Life: Current Outputs and Outcomes











Outcome

Collaboration with Selangor State Government for Selangor Mental Sihat



















Mental Health Module

i-ACT For Life

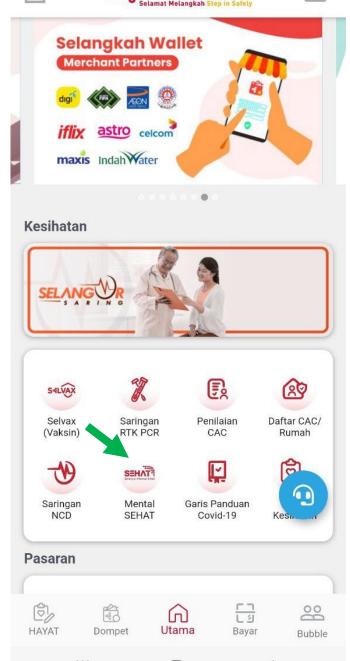
Program pencegahan dan pengurusan tekanan yang mengintegrasikan elemen kerohanian Islam dan Terapi Penerimaan dan Komitmen

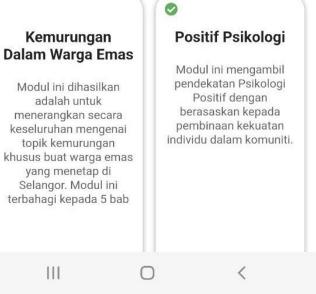
ACT For Life

Program pencegahan dan pengurusan tekanan yang berasaskan Terapi Penerimaan dan Komitmen



Modul ini dihasilkan adalah untuk menerangkan secara topik kemurungan yang menetap di Selangor. Modul ini



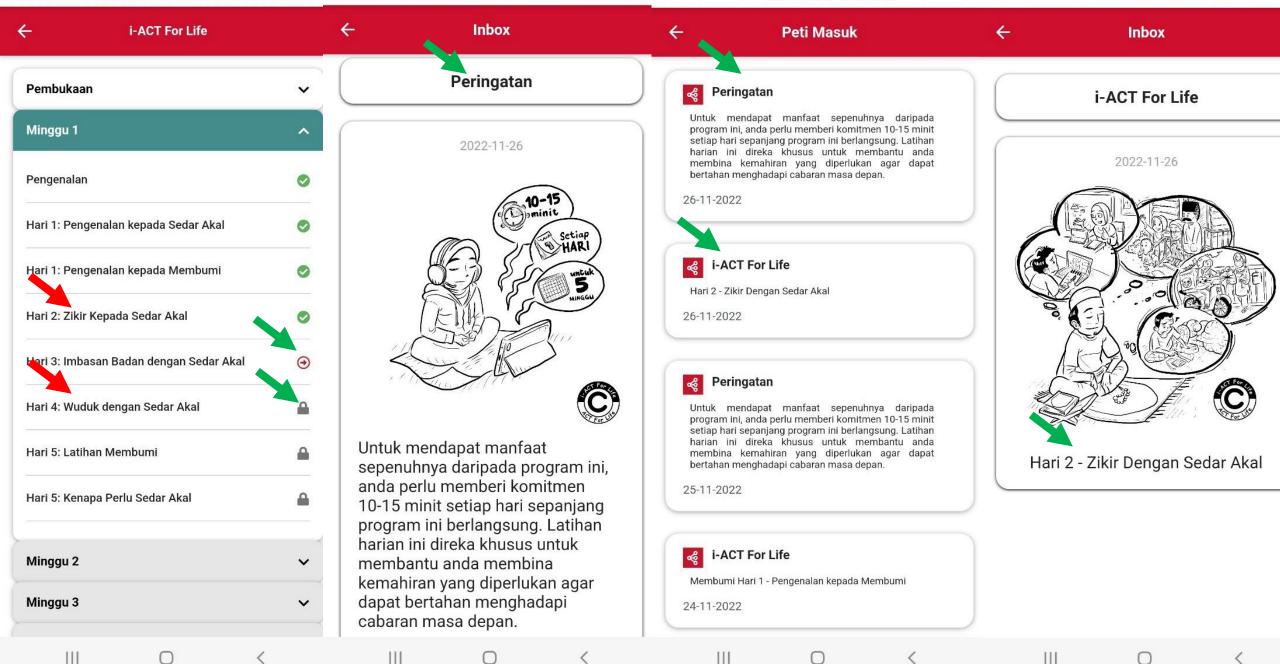


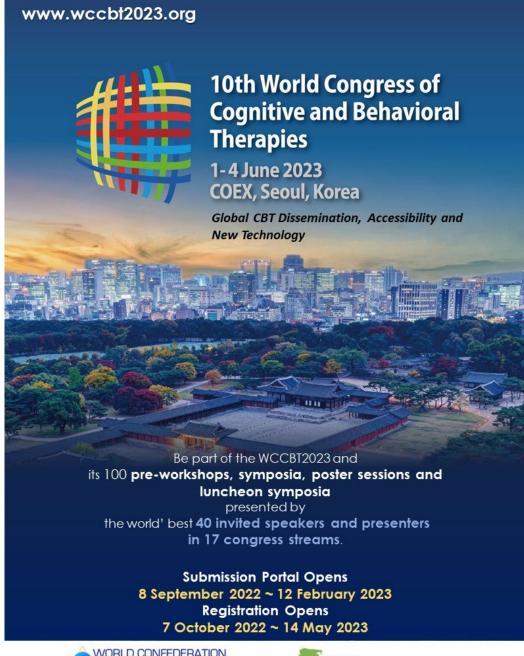






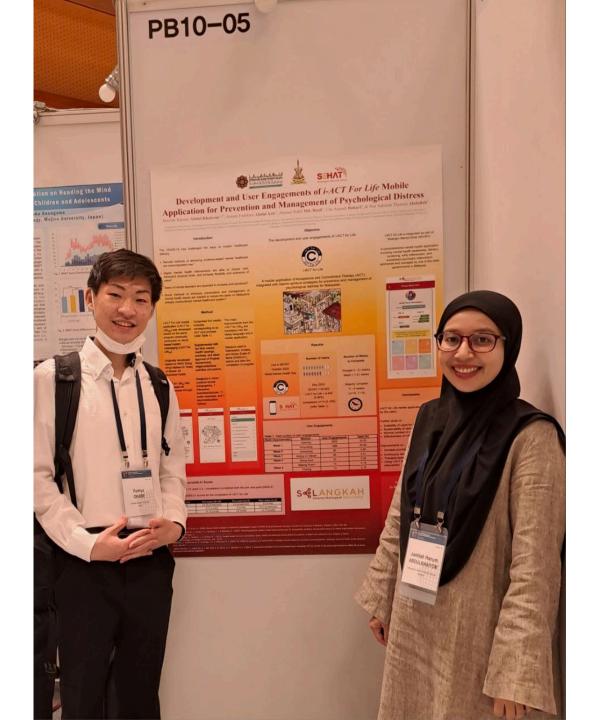












Scan the QR Code

i-ACT For Life & ACT For Life in SEHAT SELANGKAH







Experience i-ACT For Life or ACT For Life in Malay version through the SELANGKAH application.

Scan the QR code below.



Or get it on Google Play, App Store, or AppGallery.



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