

Artisan

Aspiration and Resilience Through
Intergenerational Storytelling and Art-based Narratives

Dr Andy Hau Yan HO, PhD, EdD, MFT, FT

Assistant Professor of Psychology, School of Social Sciences;
Joint Honorary Assistant Professor, Lee Kong Chian School of Medicine;
Founding Director, Action Research for Community Health (ARCH);
Deputy Director, Centre for Population Health Sciences (CePHaS),
Deputy Director of Research, Palliative Care Centre for Excellence in Research and Education (PaIC);
Nanyang Technological University Singapore.

Loneliness

/ 'ləʊnlɪnɪs /

A major public health concern in the 21st Century

- Associated with a wide spectrum of health problems including but not limited to depression, substance abuse, and increase mortality risk by 30%¹
- **Older adults:** 12 - 35% older adults in UK and US report feelings of chronic loneliness; **51% older adults in Singapore report feeling lonely**
- **Youth:** 1 in 3 young people in the UK suffer from loneliness; **Increasing Singaporean youths seek help due to loneliness and long for social connections**

Estimated financial cost of loneliness to employers:

SGD\$4.5 billion a year around the world

¹Holt-Lunstad, J., Smith, R., Baker, et al. (2015). Loneliness and Social Isolation as Risk Factors for Morality: A Meta-Analytic Review. *Perspective on Psychological Sciences*. 10(2), 227-237.



Loneliness may be a greater public health hazard than obesity – and experts say it has hit epidemic levels in the US

CHANNEL NEWSASIA
Kevin Loria, Business
© May 1, 2018

By Yvonne Lim

CNA Insider

By Jade Han

Lonely and 'waiting to die',

NEWS

Home | Video | World | Asia | UK | Business | Tech | Science | Stories | Entertainment

Family & Education

Loneliness more likely to affect young people

By Sean Coughlan
BBC News education and family correspondent

© 10 April 2018



Home | Politics | HR | Finance | Transform

William Eichler 11 June 2018

Loneliness prevention initiatives can save councils £2m, council chiefs say



HEALTH

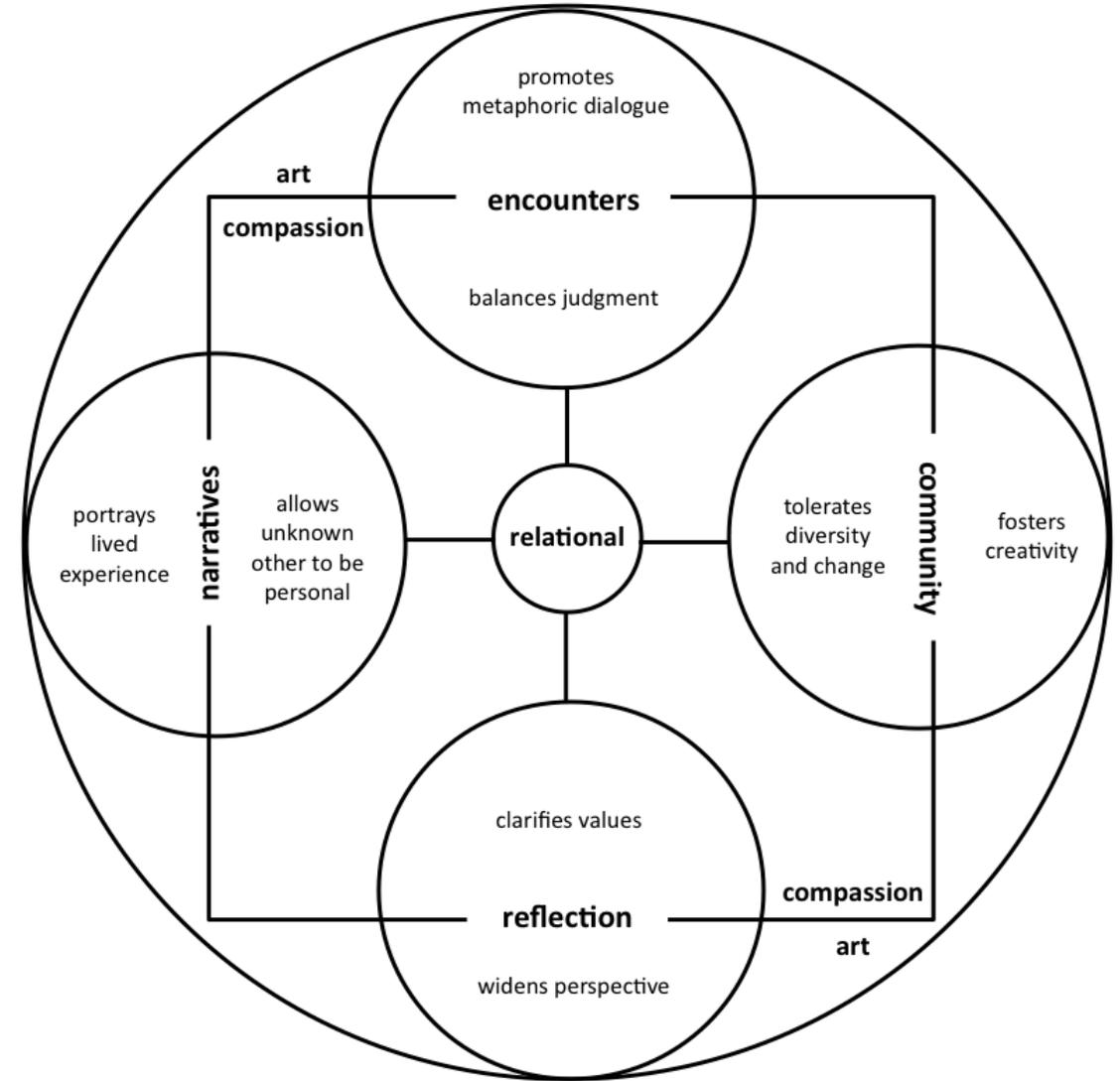
LONELINESS CAN DAMAGE YOUR HEART, CAUSE PREMATURE DEATH FROM CARDIOVASCULAR DISEASE, NEW RESEARCH SUGGESTS

BY LISA SPEAR ON 6/11/18 AT 11:02 AM

Overcoming Loneliness through Citizen Empowerment via the Arts

*Citizen Empowerment involves the promotion of **active participation and compassionate actions** in civic and community life, a crucial means to alleviate loneliness*

- “The Ministry of Culture, Community and Youth (MCCY) seeks to **inspire Singaporeans through the arts** and sports, strengthen community bonds, and promote volunteerism and philanthropy.”
- Arts and heritage “help keep the individual **resilient, aid recovery and foster a flourishing society.**” – UK National Alliance for Arts, Health and Wellbeing
- **Citizen Empowerment Model with Art and Compassion²:** integrate stories, arts, heritage and creative spaces to foster reflection, understanding, authentic dialogue, and community building to empower citizen and activate compassion



²Potash, J.S., Ho, R.T.H., & Ho, A.H.Y. (2018). Citizenship, Compassion, the Arts: People living with mental illness need a caring community. *Social Change*, 48(2), 1-22.

Involvement in arts helps elderly enjoy a better quality of life: Study

It improved their cognitive functioning, health, mental and spiritual well-being, say seniors

WONG CASANDRA
wongcasandra@mediacorp.com.sg

SINGAPORE – Seniors in Singapore have the lowest attendance and participation rates in the arts compared to other segments of the population. But a new study has found that those who are engaged with the arts are likely to enjoy a better quality of life.

The Arts for Ageing Well study, led by Nanyang Technological University's (NTU) School of Social Sciences Associate Professor Andy Ho, examined the effects of arts engagement and participation on the holistic well-being of the elderly in Asia.

As part of the study commissioned

by the National Arts Council (NAC), a survey of 1,067 Singaporeans and permanent residents over the age of 50 was carried out between November last year and February.

Those who reported having been exposed to an art form were found to experience an improved quality of life by about 4 per cent.

Dr Ho told TODAY: "In our focus groups, they engage in a variety of art forms: Music, dance and visual arts. Some participants also shared with us that cooking (as a form of art) is very important to them. Things that help remind them of their childhood; so knitting and embroidery."

The study also found that three in four seniors surveyed acknowledge the benefits of the arts, and value it as a means of inspiration, expression and bridging differences.

Seniors who attend arts events experience increased social support (of

“Participation in the arts contributes significantly to the mental health and sense of purpose in seniors, empowering them to live an active and fulfilling life.”

Ms Grace Fu
MINISTER FOR
CULTURE, COMMUNITY
AND YOUTH

SPH Websites
LIFESTYLE THE STRAITS TIMES

SINGAPORE POLITICS ASIA WORLD VIDEOS MULTIMEDIA LIFESTYLE FOOD FORUM OPINION BUSINESS SPORT TECH

LIFESTYLE Entertainment Travel Fashion Arts Motoring Home & Design

Seniors engaged in the arts report greater sense of well-being: Study

1 of 2 Seniors showcase a hip-hop dance performance at the Arts in Eldercare Seminar at Our Tampines Hub on Sept 6, 2017. ST PHOTO: ARIFFIN JAMAR

PUBLISHED SEP 6, 2017, 9:30 AM SGT | UPDATED SEP 6, 2017, 6:18 PM

Akshita Nanda Arts Correspondent

SINGAPORE - Watching a movie or a play, or looking at a painting, can significantly increase mental and physical health and quality of life for Singaporeans aged 50 and above, according

ST VIDEOS

- Tributes pour in for The Cranberries lead singer Dolores O'Riordan
- Over 70 hurt after walkway collapses in Jakarta
- Police baffled by discovery 13 starved, abused siblings in California
- The Fakeys: Comedians turn tables on Trump's 'fake news' awards

Recommended by @utbrain

BRANDED CONTENT

- This could be the most comfortable car you've ever sat in
- Young couples: Is BTQ your only housing option?
- Travelling through time: Channel's watermark

ARTS FOR AGEING WELL

A two-year research study that explores arts engagement and holistic wellbeing among current and future seniors in Singapore.

1067 

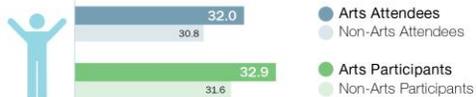
Singaporeans and PRs aged 50 and above were sampled via household survey

3 in 4 

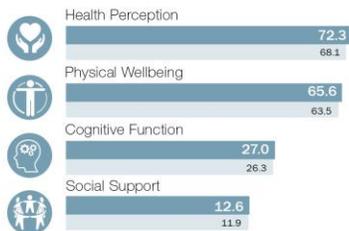
recognised the value of arts and culture in their lives

SENIORS ENGAGED IN THE ARTS EXPERIENCE A GREATER SENSE OF HOLISTIC WELLBEING

Seniors engaged in the arts enjoy better Quality of Life



Key benefits of arts attendance



Key benefits of arts participation



Figures reflected are mean score comparisons across various measures of wellbeing between those who engage in the arts and those who do not.

Benefits of arts participation comparable with use of anti-depressants, physical activity and psychotherapy

INTERVENTION	EFFECT SIZE*
 Use of antidepressants ¹ for treating depression ¹	0.26 – 0.3
 Moderate physical activity ²	0.24
 Psychotherapy ³	0.22
 Arts participation	0.25 - 0.55

*Effect size³ refers to the magnitude of a treatment effect on a population. A 0.1-0.3 score refers to a treatment having a small effect, 0.4-0.7 as having a medium effect and >0.8 having a large effect.

¹ specifically Prozac and Zoloft, based on US Food and Drug Administration (FDA) reviews.

² Source: "Selective Publication of Antidepressant Trials and Its Influence on Apparent Efficacy" in New England Journal of Medicine, 2006.

³ Source: "Physical Activity and Psychological Well-Being in Advanced Age: A Meta-Analysis of Intervention Studies" in Psychology and Aging, 2005.

⁴ Source: "The effects of psychotherapy for adult depression are overestimated: a meta-analysis of study quality and effect size" in Psychological Medicine, 2010.

Citizens Empowered through Arts, Heritage and Storytelling

Wealth of evidence highlighting the efficacy of the arts and heritage for building resilience and social connectedness

- **The Singapore Arts for Ageing Well Study:** Art engagements significantly enhance psychological health, social integration, life meaning and spiritual wellbeing among soon-to-be and current generations of seniors
- **Art-Based Storytelling:** According to the AWW focus group study findings, art-based storytelling is a treasured art form of older Singaporeans that can foster narrative identity processing in spite of potential language barriers
- **Narrative Identity Processing:** A critical pathway for healthy personality development, self-transformation and enhanced social relationships through the retelling of one's life stories in connection with social-cultural heritage
- **Review of Non-familial Intergenerational Arts Programs in East Asia:** Reduction in age stereotypes, improved problem solving skills, strengthened relational bonds, and enhanced wellbeing
- **Museum on Prescription Study:** Significance of cultural artefacts, heritage institutions and creative spaces in the creation of identity and social cohesion



This study is funded by the National Arts Council and conducted by the Department of Psychology of The School of Social Sciences at Nanyang Technological University of Singapore.

³Ho, A.H.Y., et al. (2018). *Research Report on The Arts for Ageing Well*. Singapore: Action Research for Community Health, Nanyang Technological University.

Artisan



Aspiration and Resilience Through Intergenerational Storytelling and Art-based Narratives

A 5-week 15-hour group-based intervention framework that brings together youths and seniors to embark on a journey of intergenerational storytelling, heritage bonding and creative art-making under the skylights of museums, galleries and communities.

ARTISAN is a pilot study funded by a seed grant from the National Arts Council Singapore, and implemented by the ARCH@NTU-PSYC in partnership with the National Museum in 2018.

Artisan

Participatory Action Research Intervention Framework

Theme 1 Discovering our National Heritage

Curated museum tour
focuses on artefacts that tell
stories of **national heritage**

Dyads share their personal
stories and create art that
**symbolizes the meaning of
being a Singaporean**

Reflective writing
& Group sharing



Theme 2 Strengthening Social Bonds

Curated museum tour
focuses on artefacts that tell
stories of **social connections**

Dyads share their personal
stories of friendships, and
together, create art that
symbolizes unity

Reflective writing
& Group sharing



Theme 3 Overcoming Adversities & Resilience

Curated museum tour
focuses on artefacts that tell
stories of **national resilience**

Dyads share their personal
stories of overcoming
adversities, create art that
symbolizes resilience

Reflective writing
& Group sharing



Theme 4 Building Our Dreams & Aspirations

Curated museum tour
focuses on artefacts that tell
stories of hope

Dyads share their dreams
for the nation, create art
that **symbolizes their future
aspirations for Singapore**

Reflective writing
& Group sharing



Theme 5 Sharing our Stories and Legacies

Dyads are provided with an
open platform to reflect and
verbally share their art,
stories, as well as gratitude
and wisdom with the group

Artworks and creative
writings are showcased to
all group members, and
members of the community



Each ARTISAN Group comprised 7-8 pairs of youth-senior dyads, and was led by a Artist/Art Therapist together with a minimum of 2 trained facilitators.

Research Objectives

Empowerment

Reducing loneliness, cultivating resilience, fostering social connectedness and nationhood, and enhancing psychosocial wellbeing, life satisfaction and quality of life

Social Change

Encouraging intergenerational interactions and knowledge exchanges, fostering real social change in building a more resilient and connected citizenry in the local society

Engagement

Promoting public engagement and dialogue on citizen empowerment and loneliness alleviation through a series of ARTISAN Exhibitions

Sustainability

Conducting robust research to provide an empirical foundation for arts engagement and a future population health study, aspiring toward large scale implementation of ARTISAN

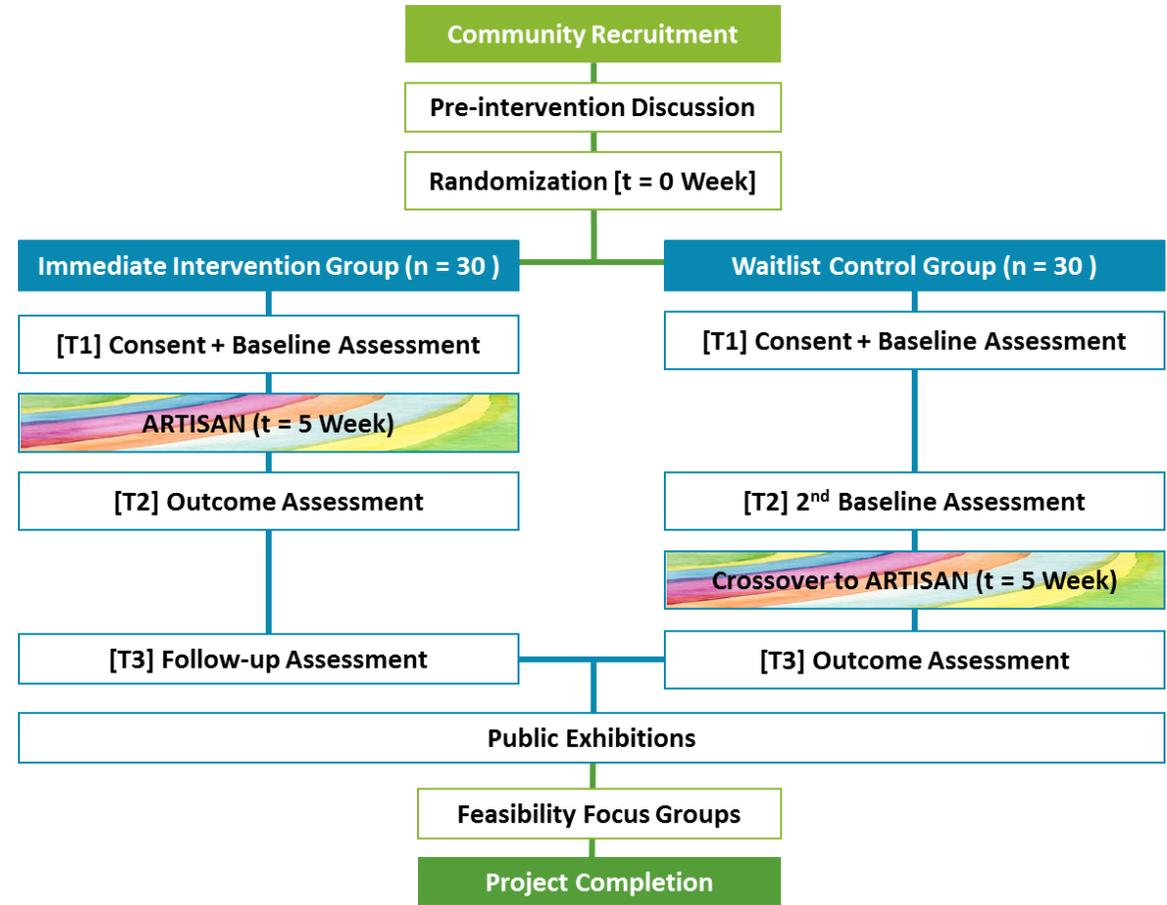
Research Design & Procedures

PAR

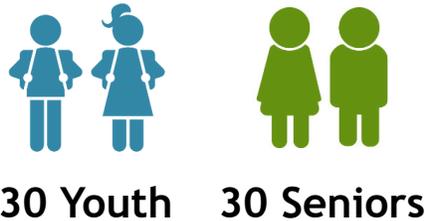
In partnership with the National Museum of Singapore, TOUCH Community Services, Nanyang Polytechnic, and Ngee Ann Polytechnic, this pilot study adopts a **Participatory Action Research (PAR)** approach to develop a novel ARTISAN intergenerational arts programme

RCT

A pilot **Waitlist Randomized Controlled Trial (RCT)** design: pre, post, and follow-up data are collected and analyzed to evaluate programme effectiveness in achieving the objectives of promoting life meaning, resilience, wellbeing, social support and national identity among study participants



Research Design & Procedures



Inclusion Criteria:

- Youths: Between age 18 - 35
- Seniors: Above age 60
- Fluent in English or Mandarin

Exclusion Criteria:

- Unable to provide informed consent (or parental consent)
- Suffer from major mental illness or cognitive impairment



1. Quality of Life (WHOQoL8)
2. Satisfaction with Life (SWLS)
3. Resilience (ER89)
4. Meaning in Life (MLQ)
5. Social Connectedness (SCS)
6. National Identity (NATID)
7. Social Support (MOS-SS)
8. Loneliness (ULS-4)
9. Compassion (SCBCS)
10. Basic demographic data



1. Pre-intervention discussions
2. Facilitators' record of the implementation
3. Weekly group reflections
4. Feasibility focus groups

Sample size calculations to provide 80% power to detect a effect size of 0.8, at 5% level of significance (two-tailed test), and an estimated attrition rate of 20% at follow-up

Data Analyses

1. Descriptive Statistics

2. Paired sample t-test

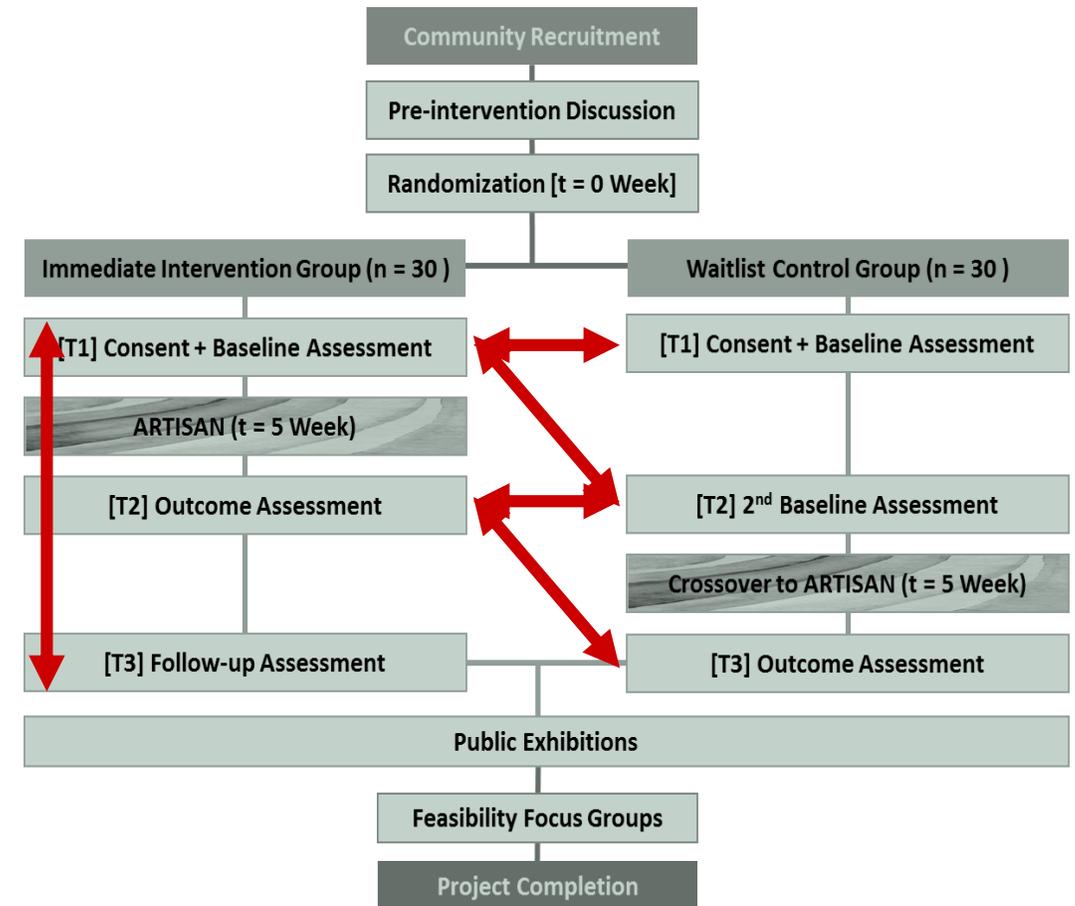
- To assess pre and post intervention assessment findings

3. Linear Mixed Effects Model

- To assess between-group differences between the intervention and control group – Intervention effects

4. Linear Mixed Effects Model

- To assess within-group differences in the intervention group over time – Maintenance effects



ARTISAN Participants Demographic Information

	Senior (n = 34)	Youth (n = 34)																								
Group Composition	Intervention: 17 (50%) Waitlist Control: 17 (50%)	Intervention: 18 (52.9%) Waitlist Control: 16 (47.1%)																								
Age	Range: 60 – 83 (M = 73.1, SD = 6.53)	Range: 19 – 29 (M = 22.2, SD = 2.34)																								
Gender	Male: 6 (17.6%) Female: 28 (82.4%)	Male: 8 (23.5%) Female: 26 (76.5%)																								
Ethnicity	100% Chinese	92% Chinese; 5.9% Malay; 2.9% Eurasian																								
Chronic Illness	Yes: 21 (61.8%)	Yes: 1 (2.9%)																								
Socio Economic Status	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Education Level</p> <p>■ Senior ■ Youth</p> <table border="1"> <tr> <td>Degree and Above</td> <td>0%</td> <td>26%</td> </tr> <tr> <td>Pre U/ 'A' Levels/ Diploma</td> <td>9%</td> <td>68%</td> </tr> <tr> <td>'O' Levels/ ITE/ NEC</td> <td>18%</td> <td>6%</td> </tr> <tr> <td>None/Primary</td> <td>74%</td> <td>0%</td> </tr> </table> </div> <div style="text-align: center;"> <p>Monthly Household Income</p> <p>■ Senior ■ Youth</p> <table border="1"> <tr> <td>> SGD 8,000</td> <td>3%</td> <td>24%</td> </tr> <tr> <td>SGD 4,000 - 7,999</td> <td>0%</td> <td>29%</td> </tr> <tr> <td>SGD 2,000 - 3,999</td> <td>0%</td> <td>6%</td> </tr> <tr> <td>< SGD 2,000</td> <td>94%</td> <td>26%</td> </tr> </table> </div> </div>		Degree and Above	0%	26%	Pre U/ 'A' Levels/ Diploma	9%	68%	'O' Levels/ ITE/ NEC	18%	6%	None/Primary	74%	0%	> SGD 8,000	3%	24%	SGD 4,000 - 7,999	0%	29%	SGD 2,000 - 3,999	0%	6%	< SGD 2,000	94%	26%
Degree and Above	0%	26%																								
Pre U/ 'A' Levels/ Diploma	9%	68%																								
'O' Levels/ ITE/ NEC	18%	6%																								
None/Primary	74%	0%																								
> SGD 8,000	3%	24%																								
SGD 4,000 - 7,999	0%	29%																								
SGD 2,000 - 3,999	0%	6%																								
< SGD 2,000	94%	26%																								

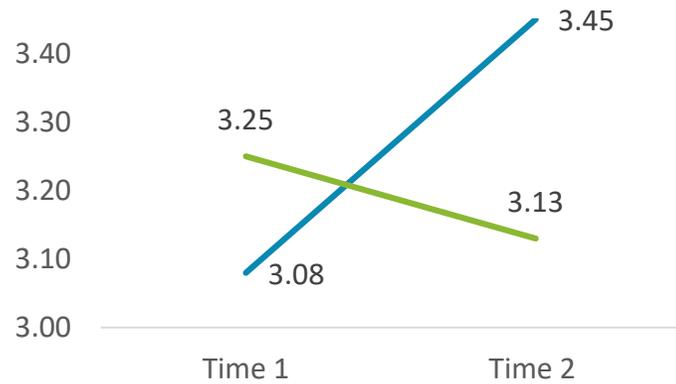
No statistically significant differences between intervention group and control group

Note: Two participants dropped out after providing consent; participants' data were omitted for the analyses

Waitlist Pilot RCT: Overall Quantitative Findings (N=68)

Intervention vs. Control

Life Satisfaction



— Intervention (n=35) — Control (n=33)

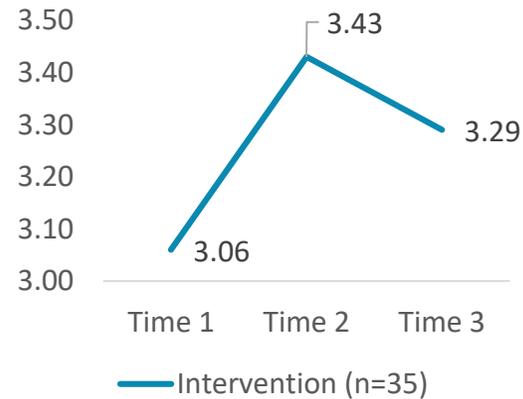
Significant **time x treatment** interaction effect:
[95% CI = .223, .772], $p < .001$

Significant **time effect** for **intervention group**:
[95% CI = .180, .562], $p < .001$

Effect size for Group differences at Time 2:
d = -.526

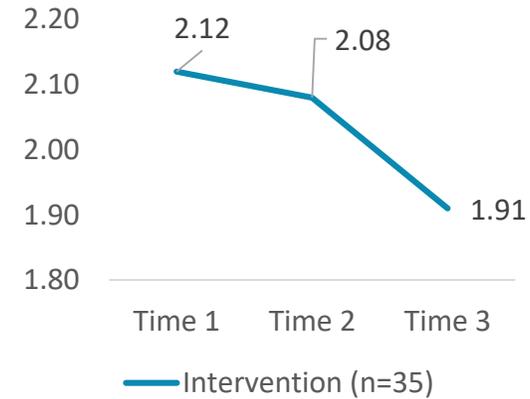
ARTISAN Impact Across Time for Intervention Group

Life Satisfaction



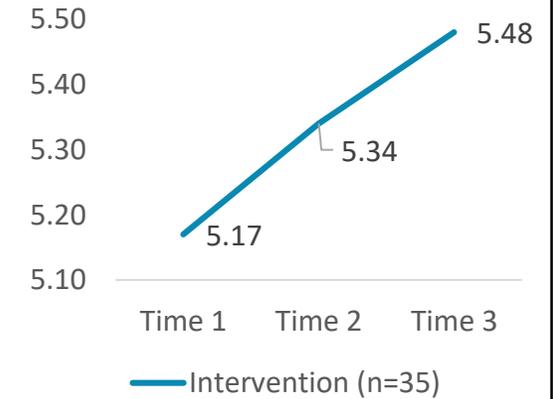
Significant increase from **T1 to T3**,
[95% CI = .041, .416],
 $p = .017$, **d = -.466**

Loneliness (ULS-8)



Significant decrease from **T1 to T3**,
[95% CI = -.339, -.080],
 $p = .001$, **d = .608**

Resilience (ER-89)



Significant increase from **T1 to T3**,
[95% CI = .070, .551],
 $p = .011$, **d = -.457**

Significant improvements were also observed in multiple resilience domains across time:
**Integrated Performance Under Stress, Active Engagements with the World,
Optimal Emotional Regulation, and Openness to Life Experiences**

Note: Time 1 = Baseline | Time 2 = Post-Intervention | Time 3 = 5-Week Follow-Up

Linear Mixed Effects Modelling was performed. Model adjusted for covariates: age, gender, marital status, employment status, income level, residence type, presence of chronic illness



Youth

Quantitative Findings

Youth Quantitative Findings (N=34)

Pre-test vs. Post-test Paired Samples t-test

- Life Satisfaction
- Quality of Life
- Life Meaning
- Resilience
- Compassion
- Loneliness
- National Identity

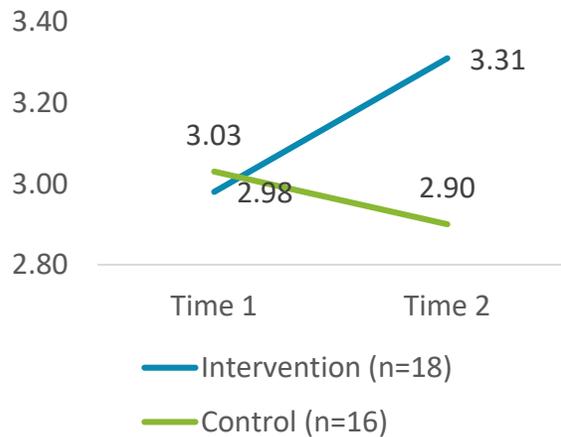
		M	SD	t	df	p	Cohen's d
Life Satisfaction	Pre-test	2.94	.489	4.52	33	<.000	-.775
	Post-test	3.32	.535				
Quality of Life (WHOQOL-8)	Pre-test	3.81	.583	4.68	33	<.000	-.802
	Post-test	4.08	.528				
Life Meaning (MLQ)	Pre-test	5.04	1.311	2.34	33	.026	-.401
	Post-test	5.36	1.038				
Social Connectedness (SCS)	Pre-test	4.42	1.132	1.57	33	.125	-.270
	Post-test	4.66	.919				
Resilience (ER-89)	Pre-test	5.07	.749	2.24	33	.032	-.384
	Post-test	5.26	.885				
Integrated Performance Under Stress (ER-11 Subscale)	Pre-test	5.00	1.148	1.10	33	.278	-.189
	Post-test	5.13	1.096				
Active Engagement with the World (ER-11 Subscale)	Pre-test	4.98	1.053	1.68	33	.103	-.288
	Post-test	5.18	1.086				
Repertoire of Problem Solving Strategies (ER-11 Subscale)	Pre-test	4.98	.930	2.41	33	.022	-.413
	Post-test	5.24	.988				
Optimal Regulation (ER-89 Subscale)	Pre-test	5.16	.781	1.96	33	.058	-.337
	Post-test	5.34	.907				
Openness to Life Experiences (ER-89 Subscale)	Pre-test	5.02	1.029	1.34	33	.189	-.230
	Post-test	5.18	1.083				
Compassion (SCBCS)	Pre-test	5.51	1.014	3.03	33	.005	-.519
	Post-test	5.79	1.009				
Loneliness (ULS-8)	Pre-test	2.27	.424	3.19	33	.003	.547
	Post-test	2.11	.375				
Emotional Support (MOS-SS)	Pre-test	3.62	.858	1.65	33	.108	-.284
	Post-test	3.80	.930				
Positive Interaction (MOS-SS)	Pre-test	3.76	.707	1.48	33	.149	-.253
	Post-test	3.92	.839				
Affectionate Support (MOS-SS)	Pre-test	3.74	.891	1.70	33	.098	-.292
	Post-test	3.93	.974				
National Identity (NATID)	Pre-test	3.93	.630	3.14	33	.004	-.538
	Post-test	4.17	.553				
Belief System (NATID Subscale)	Pre-test	3.05	.869	1.00	33	.326	-.171
	Post-test	3.16	.888				
Cultural Homogeneity (NATID Subscale)	Pre-test	4.80	.920	2.30	33	.028	-.395
	Post-test	5.06	.798				
National Heritage (NATID Subscale)	Pre-test	4.54	1.048	3.107	33	.004	-.533
	Post-test	5.06	.997				

Note: N = 34. Results of the paired sample t-tests comparing pre and post intervention scores

Youth Quantitative Findings (N=34)

Intervention vs. Control *Linear Mixed Effects Model*

Life Satisfaction

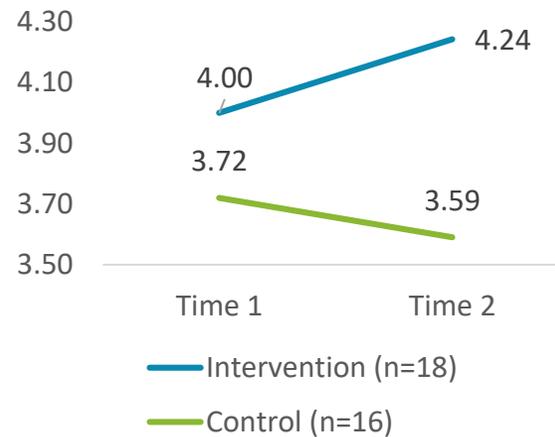


Significant **time x treatment** interaction effect:
[95% CI = .091, .846], $p = .0015$

Significant **time effect** for **intervention group**:
[95% CI = .074, .592], $p = .012$

Effect size for Group differences at Time 2:
 $d = -.678$

Quality of Life

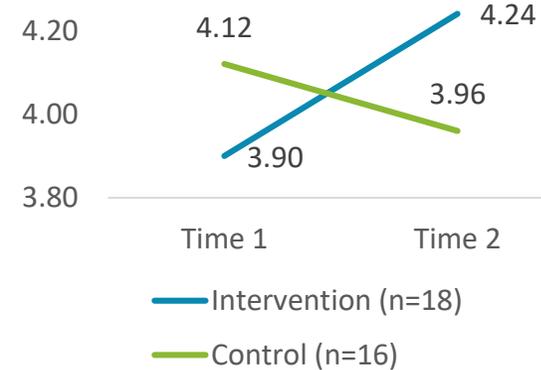


Significant **time x treatment** interaction effect:
[95% CI = .163, .523], $p < .001$

Significant **time effect** for **intervention group**:
[95% CI = .092, .339], $p < .001$

Effect size for Group differences at Time 2:
 $d = -1.31$

National Identity (NATID)

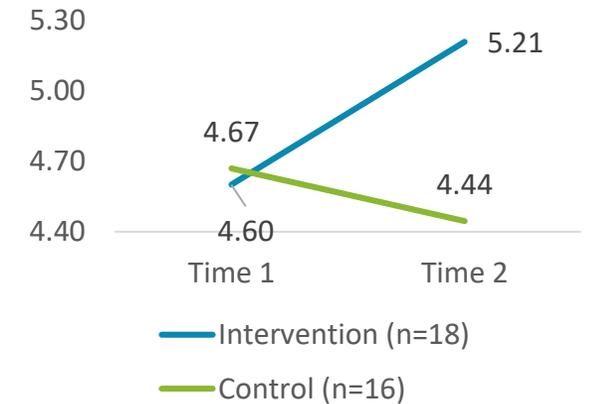


Significant **time x treatment** interaction effect:
[95% CI = .183, .805], $p = .002$

Significant **time effect** for **intervention group**:
[95% CI = .120, .547], $p = .002$

Effect size for Group differences at Time 2:
 $d = -.440$

National Heritage (NATID Subscale)



Significant **time x treatment** interaction effect:
[95% CI = .193, 1.47], $p = .011$

Significant **time effect** for **intervention group**:
[95% CI = .181, 1.04], $p = .005$

Effect size for Group differences at Time 2:
 $d = -.826$

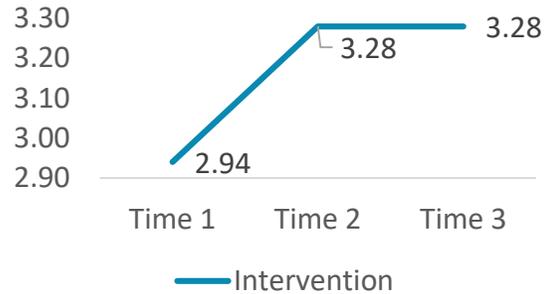
Note: Time 1 = Baseline | Time 2 = Post-Intervention | Time 3 = 5-Week Follow-Up

Linear Mixed Model performed on T1 and T2 scores, comparing the intervention with control group. Covariates: Age, Gender, Marital Status, Employment Status, Income level, residence type, presence of chronic illness

Youth Quantitative Findings (N=18)

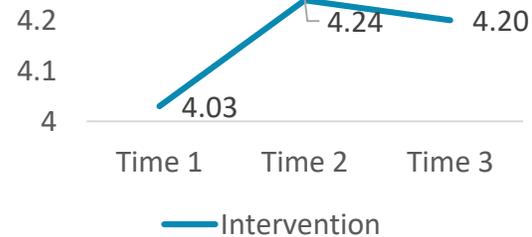
ARTISAN Impact Across Time for Intervention Group Linear Mixed Effects Model

Life Satisfaction



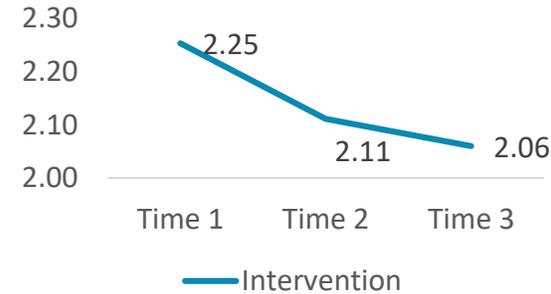
Significant increase from **T1 to T3**,
[95% CI = .091, .575], $p = .007$, $d = -.687$

Quality of Life (WHOQOL-8)



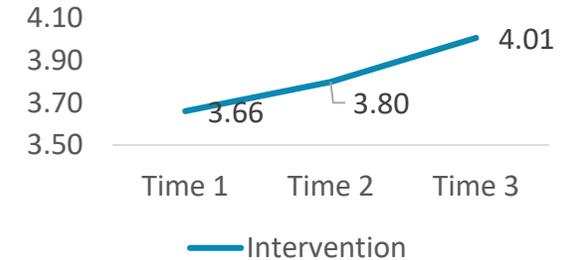
Significant increase from **T1 to T3**,
[95% CI = .063, .284], $p = .002$, $d = -.777$

Loneliness (ULS-8)



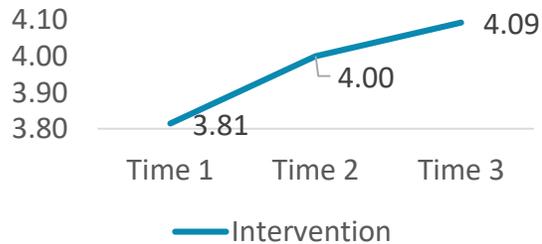
Significant decrease from **T1 to T3**,
[95% CI = -.336, -.046], $p = .010$, $d = .477$

Emotional Support (MOS-SS)



Significant increase from **T1 to T3**
[95% CI = .102, .592], $p = .005$, $d = -.567$

Affectionate Support (MOS-SS)



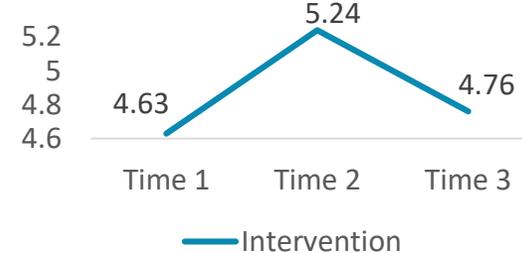
Significant increase from **T1 to T3**,
[95% CI = .030, .526], $p = .028$, $d = -.465$

National Identity (NATID)



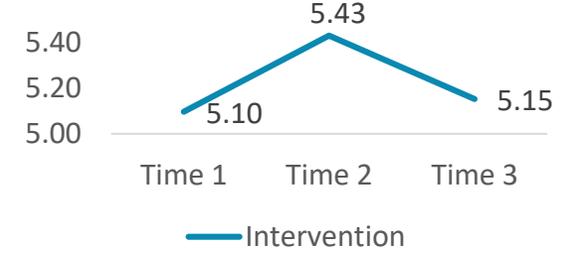
Significant increase from **T1 to T2**,
[95% CI = .132, .534], $p = .001$, $d = -.783$
Significant decrease from **T2 to T3**,
[95% CI = -.464, -.062], $p = .010$, $d = .678$

National Heritage (NATID Subscale)



Significant increase from **T1 to T2**,
[95% CI = .182, 1.04], $p = .005$, $d = -.804$
Significant decrease from **T2 to T3**,
[95% CI = -.910, -.053], $p = .028$, $d = .525$

Problem Solving (Resilience - ER Subscale)



Significant increase from **T1 to T2**,
[95% CI = .074, .593], $p = .012$, $d = -.607$
Significant decrease from **T2 to T3**
[95% CI = -.537, -.019], $p = .036$, $d = .488$

Linear Mixed Effect Model performed on assessment at all time points in the intervention group; Covariates: Age, Gender, Marital Status, Employment Status, Income level, residence type, chronic illness



Seniors

Quantitative Findings

Seniors' Quantitative Findings (N=34)

Pre-test vs. Post-test Paired Samples *t*-test

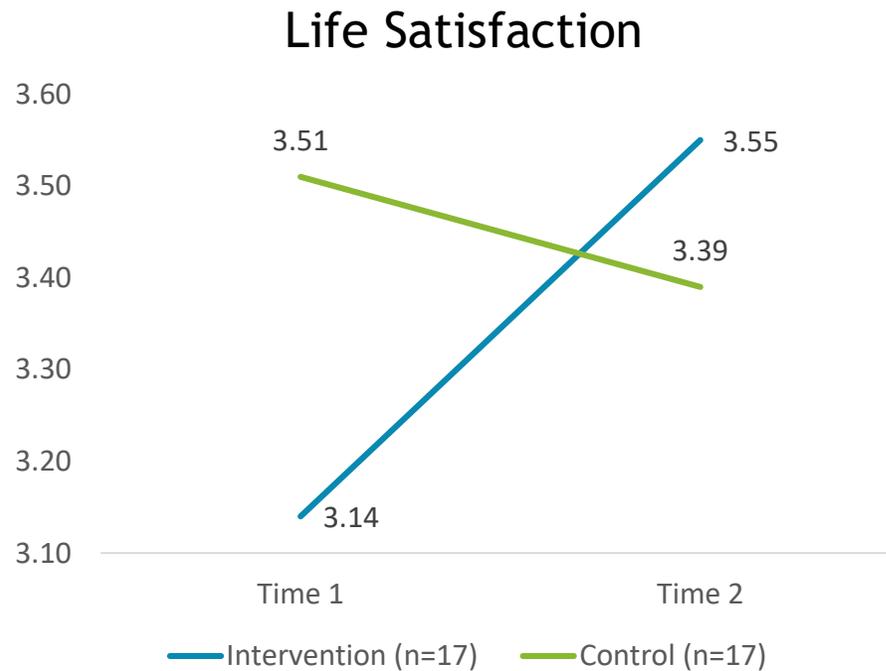
- Life Satisfaction
- Quality of Life

		M	SD	t	df	p	Cohen's d
Life Satisfaction	Pre-test	3.26	0.511	2.478	33	.019	-.425
	Post-test	3.50	0.508				
Quality of Life (WHOQOL-8)	Pre-test	3.97	.440	2.267	31	.030	-.401
	Post-test	4.16	1.214				
Life Meaning (MLQ)	Pre-test	5.54	0.884	0.948	33	.350	-.163
	Post-test	5.72	1.099				
Social Connectedness (SCS)	Pre-test	4.65	0.844	0.868	33	.392	-.149
	Post-test	4.83	0.841				
Resilience (ER-89)	Pre-test	5.25	0.986	0.632	33	.532	-.108
	Post-test	5.33	1.184				
Integrated Performance Under Stress (ER-11 Subscale)	Pre-test	5.59	1.134	0.666	33	.510	-.114
	Post-test	5.47	1.274				
Active Engagement with the World (ER-11 Subscale)	Pre-test	4.94	1.247	0.930	33	.359	-.160
	Post-test	5.09	0.946				
Repertoire of Problem Solving Strategies (ER-11 Subscale)	Pre-test	5.36	1.111	0.066	33	.948	.011
	Post-test	5.35	0.876				
Optimal Regulation (ER-89 Subscale)	Pre-test	5.47	0.908	0.285	33	.778	-.049
	Post-test	5.51	1.303				
Openness to Life Experiences (ER-89 Subscale)	Pre-test	4.86	1.304	0.859	33	.397	-.147
	Post-test	5.01	0.936				
Compassion (SCBCS)	Pre-test	5.46	1.146	0.386	33	.702	-.066
	Post-test	5.54	0.456				
Loneliness (ULS-8)	Pre-test	1.92	0.429	0.011	33	.992	.002
	Post-test	1.92	0.844				
Emotional Support (MOS-SS)	Pre-test	3.64	0.810	0.298	33	.768	.051
	Post-test	3.60	0.701				
Positive Interaction (MOS-SS)	Pre-test	3.84	0.745	0.599	33	.553	-.103
	Post-test	3.92	0.800				
Affectionate Support (MOS-SS)	Pre-test	3.86	0.914	0.369	33	.715	.063
	Post-test	3.79	0.619				
National Identity (NATID)	Pre-test	4.84	0.754	0.787	33	.437	.135
	Post-test	4.72	0.846				
Belief System (NATID Subscale)	Pre-test	4.16	0.995	0.841	33	.407	.144
	Post-test	3.97	0.941				
Cultural Homogeneity (NATID Subscale)	Pre-test	5.19	0.933	0.222	33	.826	-.038
	Post-test	5.23	1.114				
National Heritage (NATID Subscale)	Pre-test	5.85	1.114	0.772	33	.446	0.132
	Post-test	5.65	1.351				

Note: N = 34, except Quality of Life (n = 32). Results of the paired sample *t*-tests comparing pre and post intervention scores

Seniors' Quantitative Findings (N=34)

Intervention vs. Control *Linear Mixed Effects Model*



Significant **time x treatment** interaction effect:
[95% CI = .120, .939], $p = .0011$

Significant **time effect** for **intervention group**:
[95% CI = .122, .701], $p = .005$

Effect size for Group differences at Time 2:

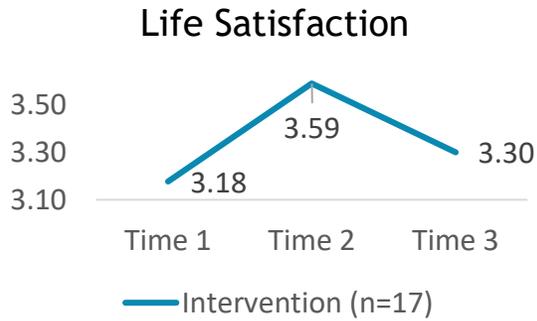
$d = -.485$

Note: Time 1 = Baseline | Time 2 = Post-Intervention | Time 3 = 5-Week Follow-Up

Linear Mixed Model performed on T1 and T2 scores, comparing the intervention with control group. Covariates: Age, Gender, Marital Status, Employment Status, Income level, residence type, presence of chronic illness

Seniors' Quantitative Findings (N=17)

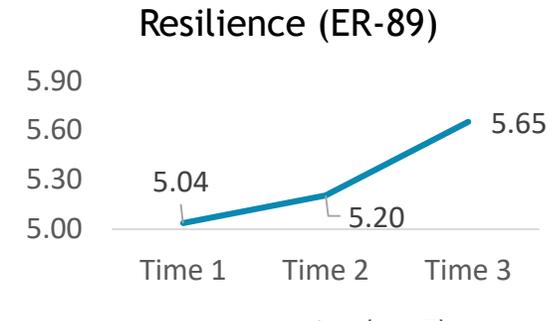
Impact Across Time for Intervention Group *Linear Mixed Effects Model*



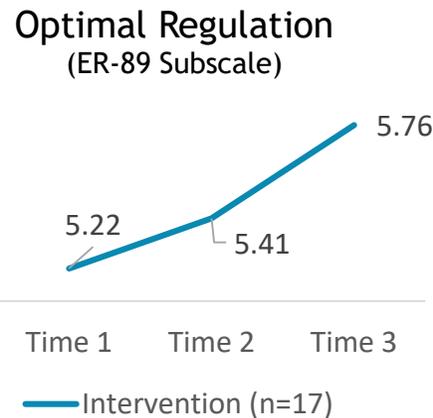
Significant increase from **T1 to T2**,
[95% CI = .125, .698], $p = .005$, $d = -.578$
Significant decrease from **T2 to T3**,
[95% CI = -.580, -.008], $p = .044$, $d = .500$



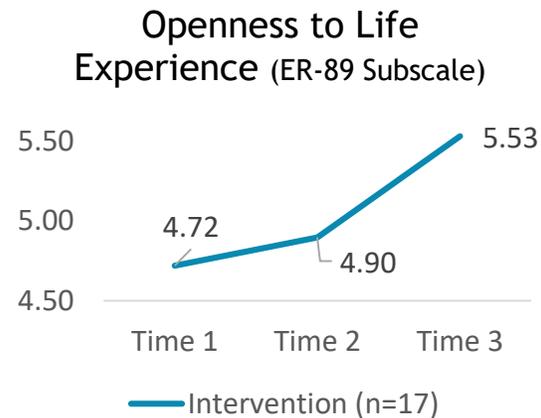
Significant decrease from **T1 to T3**,
[95% CI = -.440, -.017], $p = .034$, $d = .804$



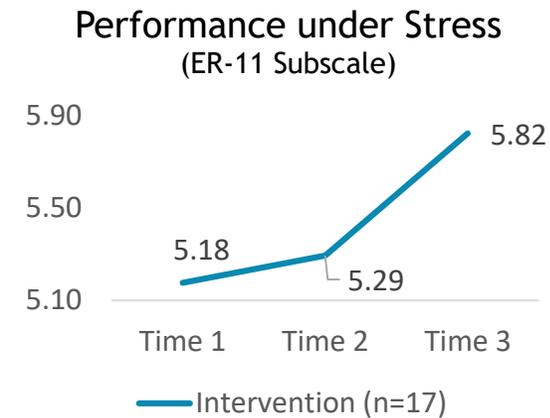
Significant increase from **T1 to T3**,
[95% CI = .187, 1.04], $p = .005$, $d = -.776$



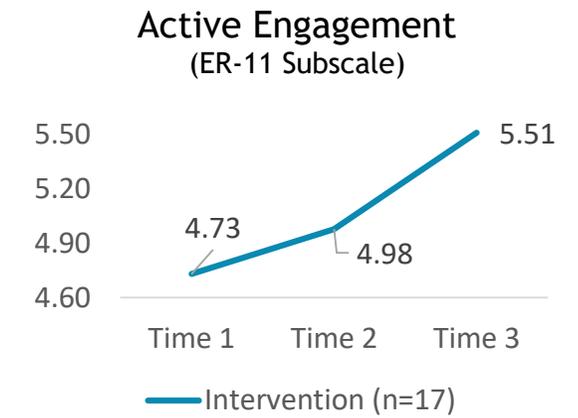
Significant increase from **T1 to T3**,
[95% CI = .108, .974], $p = .014$, $d = -.695$



Significant increase from **T1 to T3**,
[95% CI = .228, 1.39], $p = .006$, $d = -.677$



Significant increase from **T1 to T3**,
[95% CI = .160, 1.13], $p = .009$, $d = -.894$



Significant decrease from **T1 to T3**,
[95% CI = .158, 1.39], $p = .014$, $d = -.603$

Linear Mixed Effect Model performed on assessment at all time points in the intervention group; Covariates: Age, Gender, Marital Status, Employment Status, Income level, residence type, chronic illness



Qualitative Findings

from Participants' Sharing

Qualitative Findings from Participant's Sharing

Resilience & Capacity Building

Previously I was more individualistic and shy... now I learnt that I have the capacity to try out new forms of art and work with someone very different from me.

24 year old, Female, Malay

I realize that even at this age, there is so much I can learn, and find more confidence in trying new things, creating new things.

71 year old, Female, Chinese

Fostering Nationhood

I get to learn about the past of Singapore, our forefather's contributions and how hard it was for Singapore to get here. I like the touching stories told by all of them (senior participants).

23 year old, Female, Chinese

Sharing our ideas, young and old, learning about each other's unique Singapore from different times. The places may be gone, but our memories and heritage still remain.

70 year old, Male, Chinese

Social Connectedness & Gratitude

These five weeks has taught me how to better communicate with the elderly and not to disregard our differences but to celebrate them. It has also made me aware of how different the times were growing up and made me more appreciative.

23 year old, Female, Chinese

I have a greater appreciation of working together with youths ... ARTISAN has broken the intergenerational barrier.

64 year old, Female, Chinese

Qualitative data in the forms of audio recordings of focus group discussion were transcribed verbatim, back-to-back translation when appropriate, and analyzed using thematic analysis.



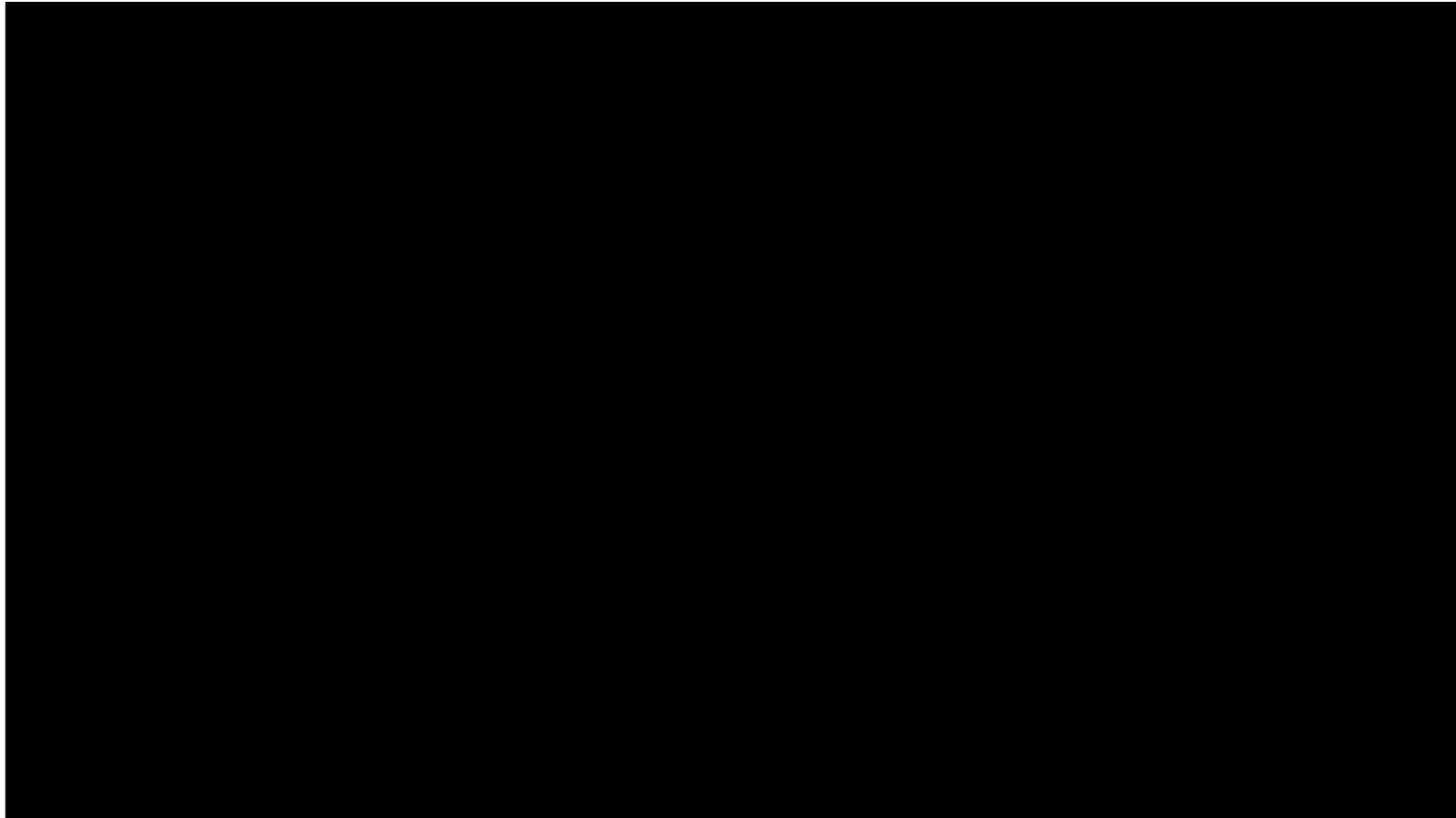
Community
Exhibition
May - June 2018



National Day Showcase | Aug 2018
Family Day Showcase | Sept 2018
Grandparent's Day Showcase | Nov 2018



The *Artisan* Experience



The Way Forward...

Artisan

A National Study on Citizen Empowerment to
Overcome Loneliness through Arts and Heritage

Artisan

Research Objectives, Significance,
& Long-Term and Sustainable Social Impact

Empowerment

*Reduce loneliness, cultivate resilience, social connectedness and nationhood, as well as enhance psychological and psychophysiological wellbeing, self-esteem, life satisfaction and QoL of **400 youths and 400 seniors** via societal-wide implementation of an empirically-driven, cultural-specific, and locally developed ARTISAN framework across 6 major museums and galleries in Singapore.*

Social Change

*Foster real social change in building a more resilient, connected and compassionate citizenry in the local society. **Stories of 800 ARTISAN RCT participants will be curated to form a digital archive named "Stories-Connect", with downloadable podcasts, e-learning tools and social media advocacy to support local heritage and value education, reaching an estimated 600,000 individuals annually.***

Engagement

*Promote public engagement and dialogue for citizen empowerment and loneliness alleviation through **a series of ARTISAN Exhibitions to be hosted at each of the 6 participating museums and galleries, reaching an anticipated 338,330 visitors.***

Sustainability

*Ensure the long term sustainability of ARTISAN through the development of the **ARTISAN Facilitator Training and Mentorship programme to coach 200 frontline/in-training health and social care workers to provide ARTISAN to an additional 1,600 youths & seniors.***

Artisan

A National Study on Citizen Empowerment to Overcome Loneliness through Arts and Heritage

The ultimate goal of ARTISAN is citizen empowerment for addressing the urgent public health problem of loneliness.

It is an innovative, empirically driven, culturally specific and locally developed intervention framework that integrates stories, arts, heritage and creative spaces for bridging and illuminating the lives of youths and seniors.

The comprehensive programming of ARTISAN: The National Study will create a sustainable social movement of compassionate citizenry and loneliness alleviation, one that will build and fortify a more caring and inclusive Singapore.

The pioneering ARTISAN framework will also serve to inform the practice, research and policy of art-based and heritage-space interventions around the globe.

Support being sought via the MOE Social Sciences Research Thematic Grant

Principal Investigator:

Dr Andy Hau Yan HO (School of Social Sciences & LKCMedicine)

Co-Investigators:

Dr MIAO Chun Yan (School of Computer Sciences & Engineering)

Dr Michael Koon Boon TAN (School of Arts, Design & Media)

Dr THENG Yin Leng (School of Communication & Information)

Collaborating Advisor:

Dr Sharon Chang (MCCY & NAC)

Community Collaborators:



Artisan

Aspiration and Resilience Through
Intergenerational Storytelling and Art-based Narratives

Thank You

Contact Us: andyhyho@ntu.edu.sg
| <https://blogs.ntu.edu.sg/arch> | www.facebook.com/archlabntu |

This study is funded by the National Arts Council Singapore, and implemented in partnership with the National Museum Singapore, TOUCH Community Services, Nanyang Polytechnic and Ngee Ann Polytechnic