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Center for
Global Health Equity
全球健康公平研究中心

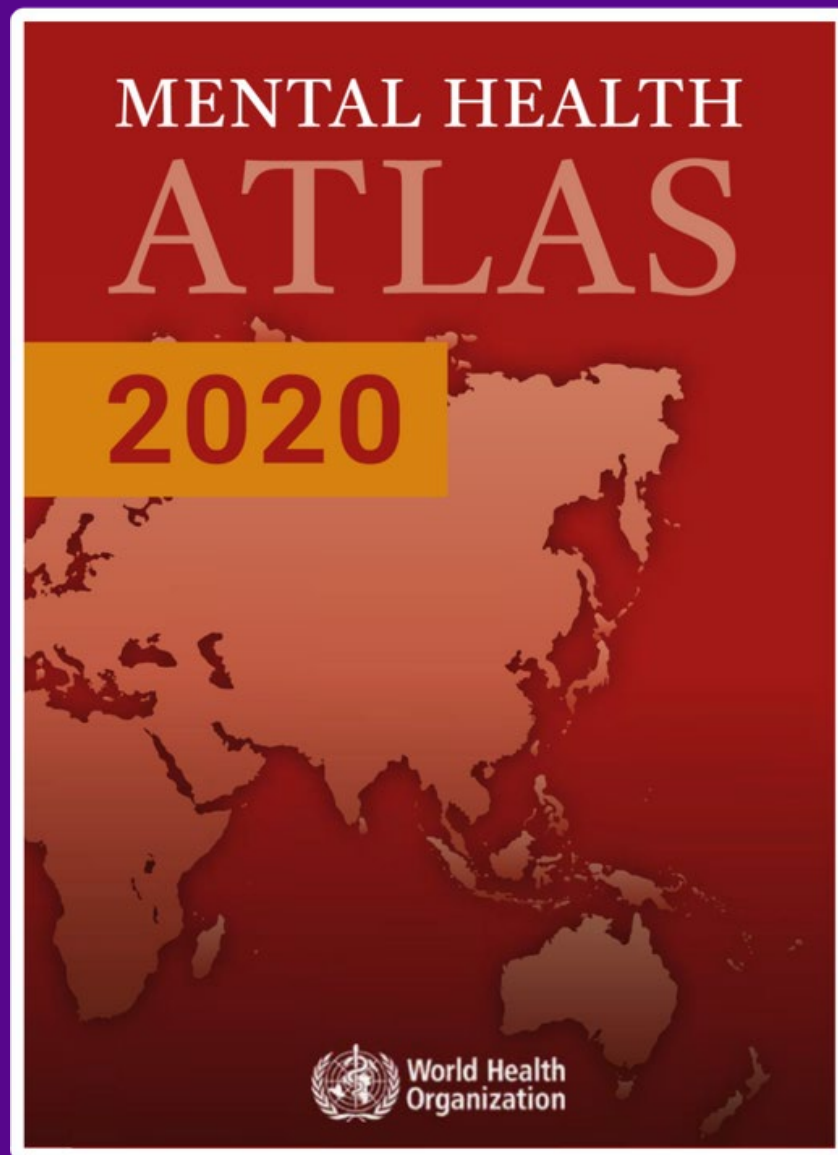
Making scalable digital mental health interventions culturally appropriate: A program to reach Filipinos in China

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Affiliated Professor, Department of Global and Environmental Health,
School of Global Public Health, New York University



The WHO Mental Health Atlas



“

...the most comprehensive resource on global information on mental health and an important tool for developing and planning mental health services within countries and regions.

”

Started in 2001, and this is the fifth update

<https://www.who.int/publications/i/item/9789240036703>

FIGURE 3.3.4 Mental health workers (median number per 100 000 population), by World Bank income group

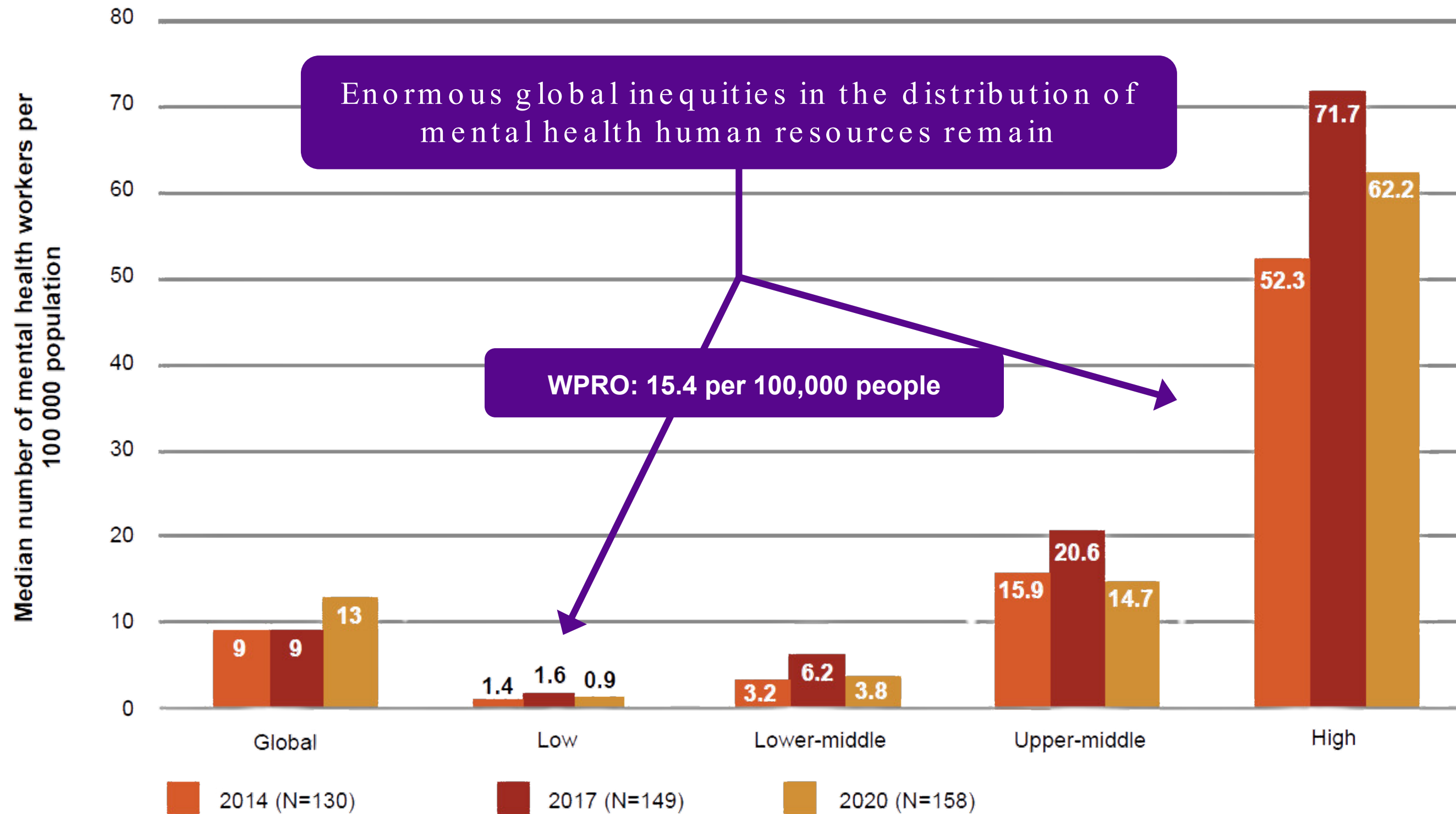
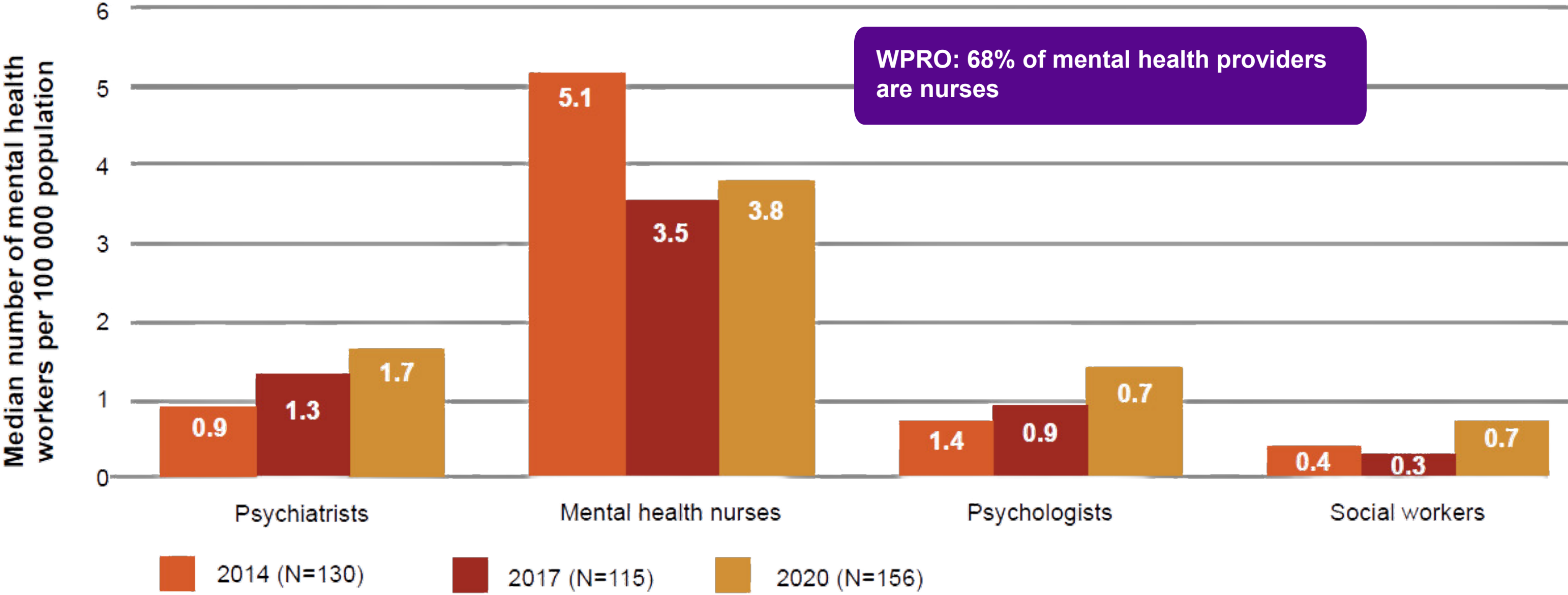


FIGURE 3.3.7 Global mental health workers: breakdown (median number per 100 000 population), (2014, 2017 and 2020)



Attitudinal barriers: Negative attitudes toward help-seeking, poor help-seeking experiences, distrust, preference to handle problems themselves, and unwillingness to self-disclose problems

Cultural barriers: Fear of discrimination, face concern, self-stigma, public stigma, and choosing alternative treatments (e.g., asking help for physical health, Chinese Traditional Medicine, fortune tellers, or religious leaders)

Low perceived need: Included trying to handle mental problems by themselves, family's opposition to help-seeking, under recognition of the need for treatment, and ignoring the severity of their mental illness

Structural barriers: Insurance, cost, confidentiality, transportation, appointment availability, scheduling, and childcare, insufficient accessibility to psychological health information, and limited resources about available mental health services



SYSTEMATIC REVIEW
published: 20 May 2020
doi: 10.3389/fpsyt.2020.00442

Barriers to Professional Mental Health Help-Seeking Among Chinese Adults: A Systematic Review

Wei Shi, Zhuozhuo Shen, Siyuan Wang and Brian J. Hall*

Global and Community Mental Health Research Group, Department of Psychology, Faculty of Social Sciences, University of Macau, Macau, China

Shi, W., Shen, Z., Wang, S., & Hall, B. J. (2020). Barriers to Professional Mental Health Help-Seeking Among Chinese Adults: A Systematic Review. *Frontiers in psychiatry*, 11, 442. <https://doi.org/10.3389/fpsyt.2020.00442>

For the future of mental health



**CORE EXPERT MEETING ON THE IMPLEMENTATION OF THE
REGIONAL FRAMEWORK FOR THE FUTURE OF MENTAL HEALTH
29-31 March 2023
NATIONAL CENTER FOR NEUROLOGY AND PSYCHIATRY
TOKYO, JAPAN**

OUR VISION FOR THE FUTURE

A region where people enjoy the highest level of mental health and wellbeing, grounded by social solidarity for a transformative environment that promotes mental health for all.

DIRECTIONAL STRATEGIES (WHAT WE WILL DO)

Refocusing

the mental health agenda to include well-being and reaching the unreached

Transforming

mental health care into a community-based ecosystem of health and social services and innovation

Embedding

mental health into the settings and journeys of daily life in our communities

ENABLING STRATEGIES (HOW WE WILL DO IT)

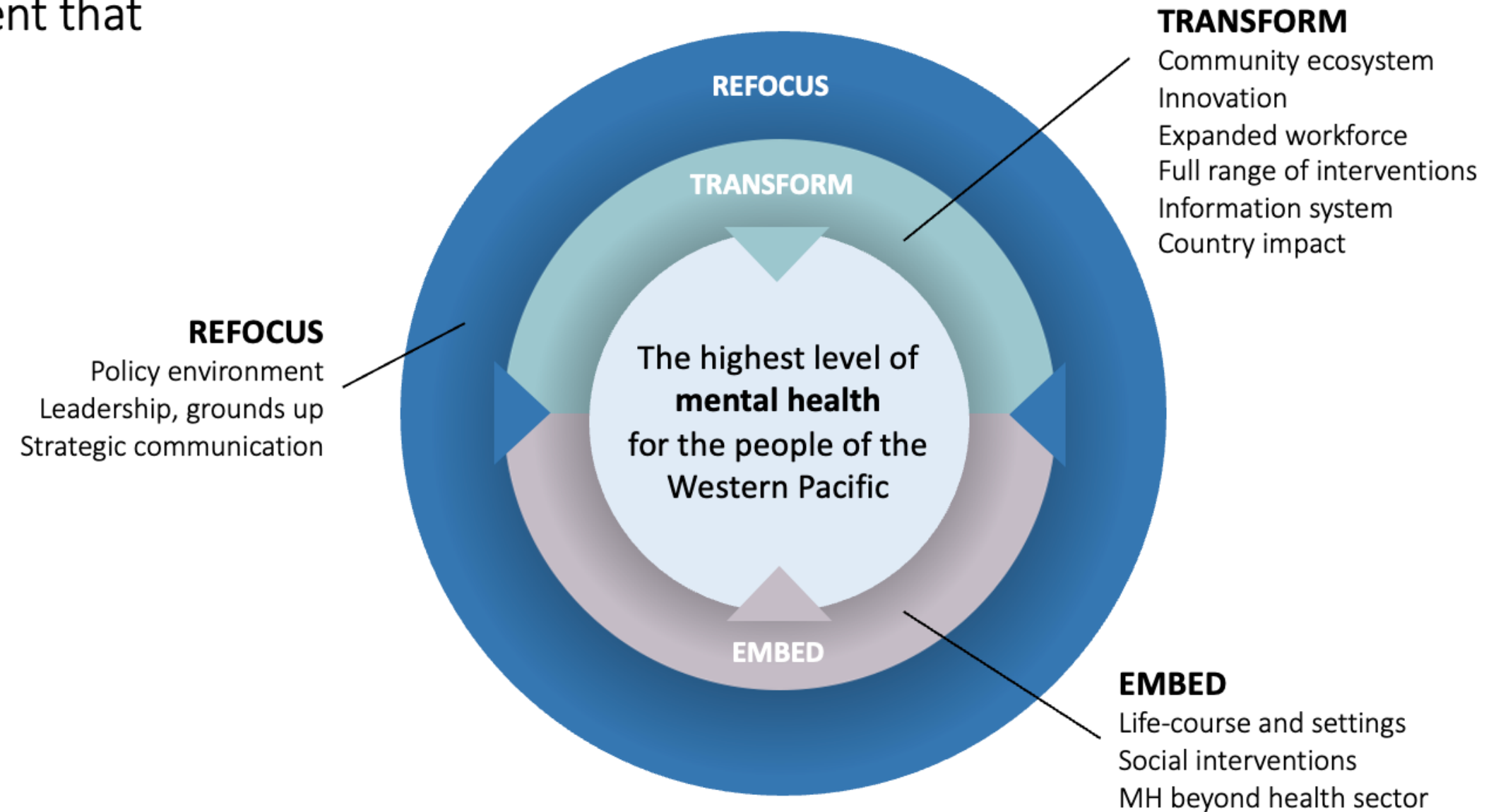
Innovation for mental health

Future oriented decision making

Community-based partnerships

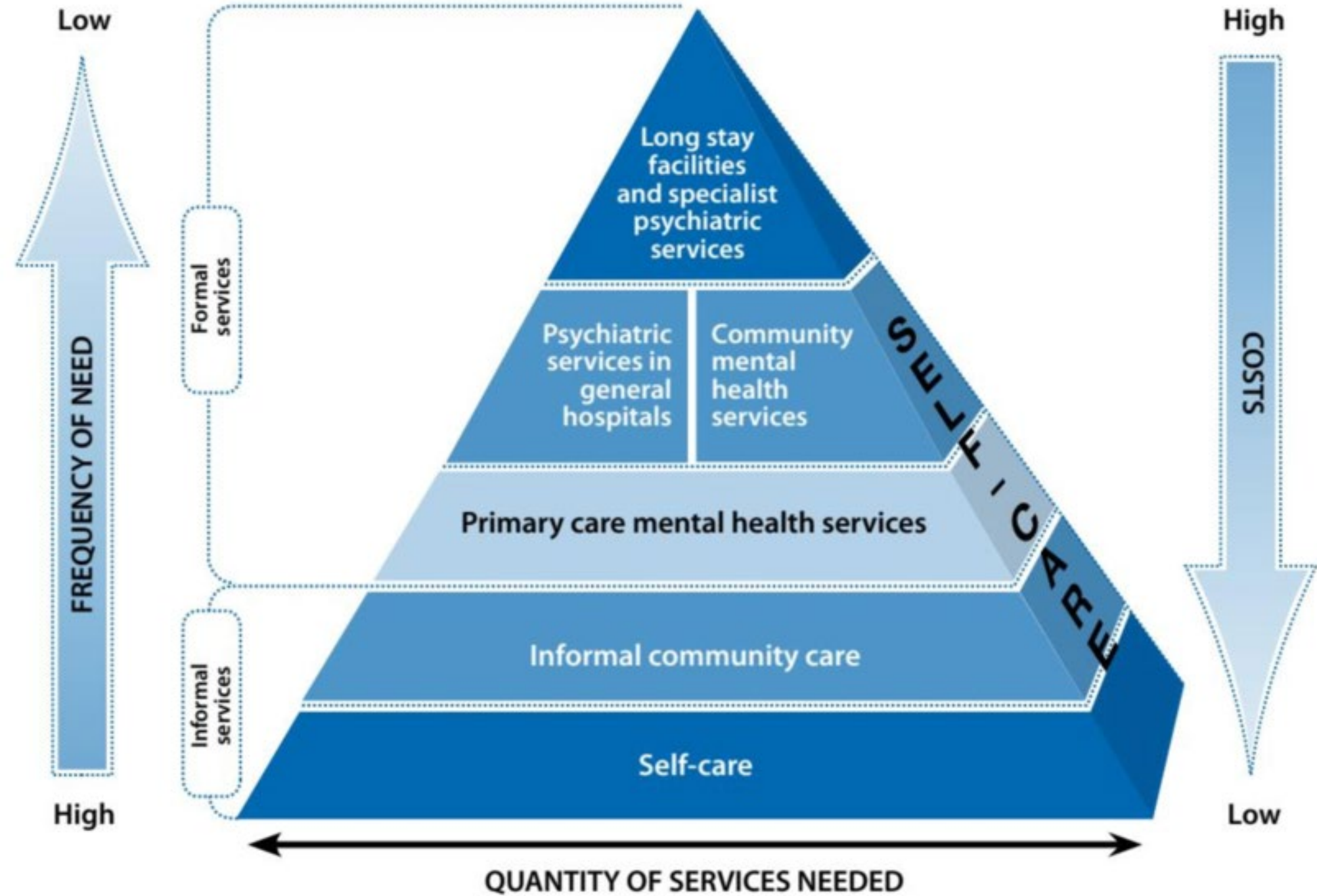
Grounds up

A SYSTEMS APPROACH FOR THE FUTURE OF MENTAL HEALTH



Source: WHO

Providing lower intensity psychological service options can reduce the care burden and enhance overall wellbeing





Source: WHO

Scalable interventions (WHO)

Scalable psychological interventions for people in communities affected by adversity

A new area of mental health and psychosocial work at WHO



 World Health Organization

“Scalability is not an all-or-nothing concept... Interventions become more scalable when they rely less on specialist human resources.”

- Problem Management Plus (PM+); Thinking Healthy; Group Interpersonal Therapy (IPT) for Depression (by non-specialists)
- For adversity-affected populations: Self-Help Plus (SH+);
- Step-by-Step

WHO. Scalable psychological interventions for people in communities affected by adversity. Geneva, Switzerland: World Health Organization; 2017.

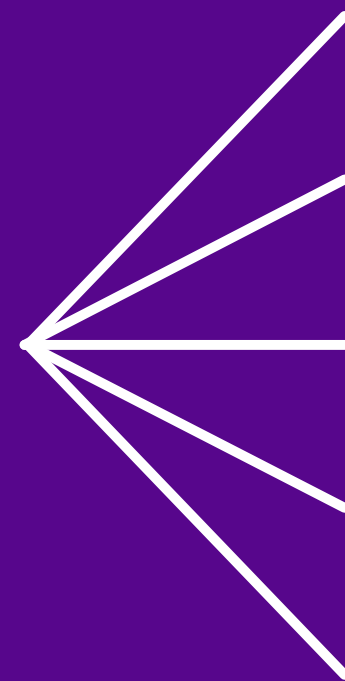
Carswell et al., 2018 - MHealth

Psychological interventions

There are different delivery models



Digital Mental Health



Culturally appropriate

In the language of end user

Minimizes stigma

Economically viable

Accessible

Icon made by Freepik from www.flaticon.com / CC BY





Filipino domestic workers:

- Labor migrants comprise 169 million people globally (ILO, 2022); 11.5 Million are migrant domestic workers (ILO, 2015).
- In Macao and Hong Kong, China, 50% of domestic workers are from the Philippines — 200,000 people.
- The Philippines ranks among top labor-sending countries, (OFWs) or Filipino workers who worked abroad during 2022 was estimated at 1.96 million (Philippine Gov. 2022).
- Motivation: To provide their family members better quality of life through remittances.
 - Remittances make up 12% of the GDP
- **Employment:** 6.6% - 16.3% un/under employment.

Garabiles, Ofreneo, & Hall, 2017

Macao

- One of two SAR in China
- Population ~680k
- The highest population density in the world
20,300 people/km²
- Home to migrants: 60%; 5.1% foreign workers
- Platform – Belt and Road Initiative



Despite the size of this population, and the contributions these women make to society through their emotional labor – little is known about their health and wellbeing



Migration Phases: Accumulated exposures¹



¹Zimmerman C, Kiss L, Hossain M (2011) Migration and Health: PLoS Med 8(5): e1001034.

²Hall, B.J. Pangan, Chan & Lei (2019). Psychiatry Research, 271, 200-207.

³Chen, W., Hall, B.J., Ling, L., Renhazo, A.M.N. 2017. Lancet Psychiatry, 4, 3:218-229.

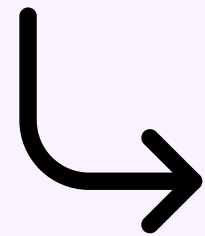
⁴Mendoza, N., Mordeno, I., & Latkin, C., & Hall, B.J. (2017). Psychiatry Research, 255, 263-271.

⁵Garabiles, M. Ofreño, M., & Hall, B.J. (2017). PLoS ONE, 12: e0183703.

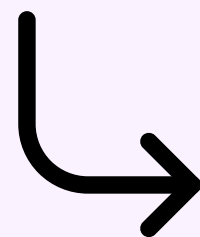
Over four years of participatory field work

Qualitative
2014-2015

- Began in 2014: Initial contact with community
- Aim to identify key health concerns, build partnerships, gain community perspectives on health needs



Epidemiological
(2016-2018)



Intervention
(2018 -)



Through a combination of ethnographic field work and community stakeholder events and consultations – we began to build partnerships and a foundation for sustainable research engagement with the community. This led to formal qualitative interviews and a community needs assessment.

Key modifiable health issues were identified:

Mental: Depression, anxiety, exposure to workplace and other potentially traumatic events, PTSD, gambling, alcohol misuse.

Physical: Obesity, hypertension

Social: Poor social support, loneliness

Sexual health: Sexually transmitted diseases, partner infidelity, and poor testing.

Generally poor access to services

Photo: Rappler news

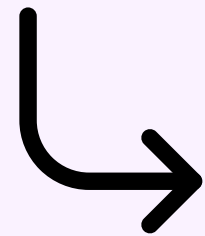
Hall, Garabiles, & Latkin, 2019

Garabiles, Ofreño, & Hall, 2017



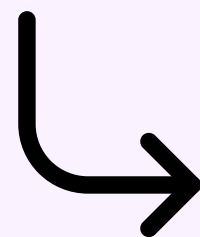
Over four years of participatory field work

Qualitative
2014-2015



Epidemiological
(2016-2018)

- Population -level estimates
- Assess prevalence/determinants
- Advocacy and planning

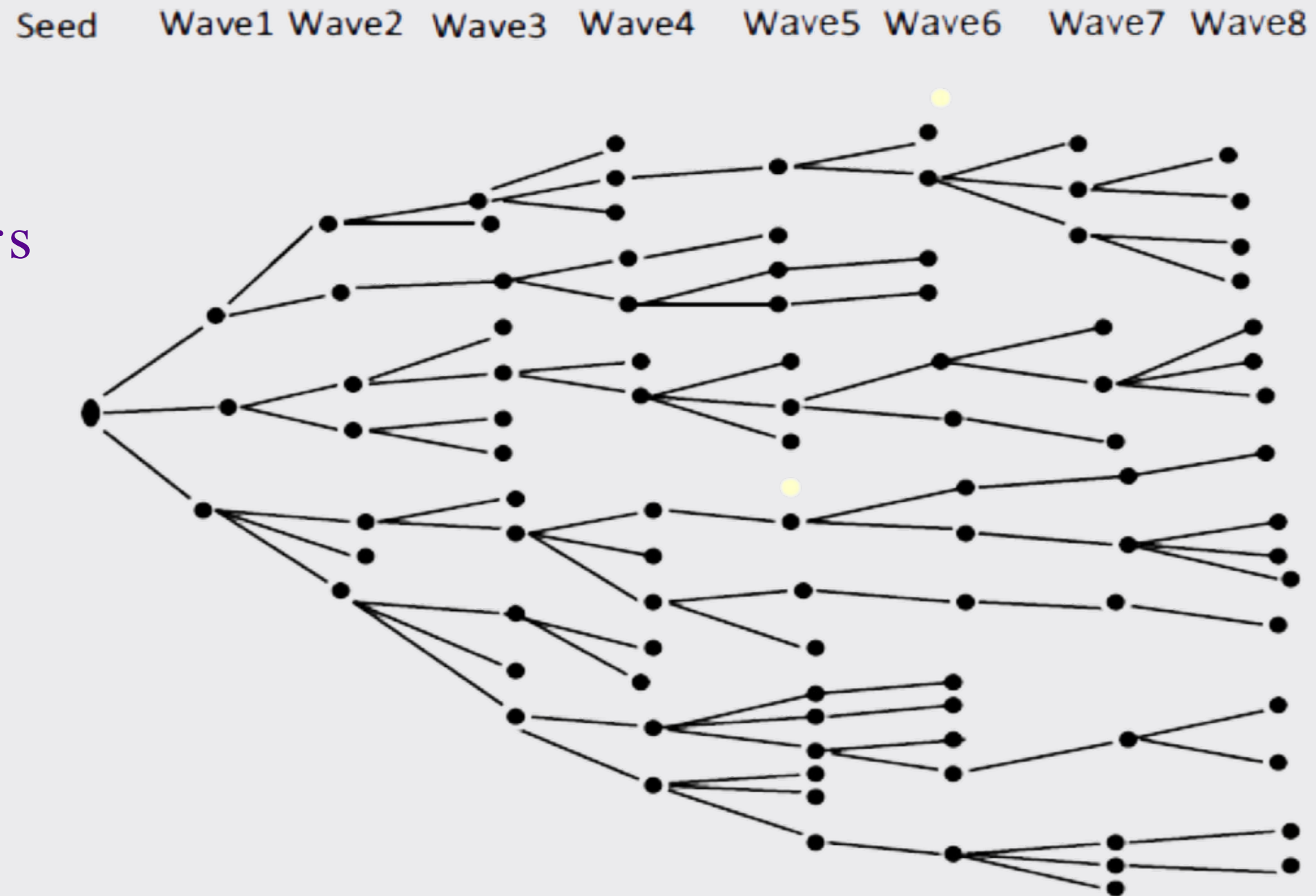


Intervention
(2018 -)



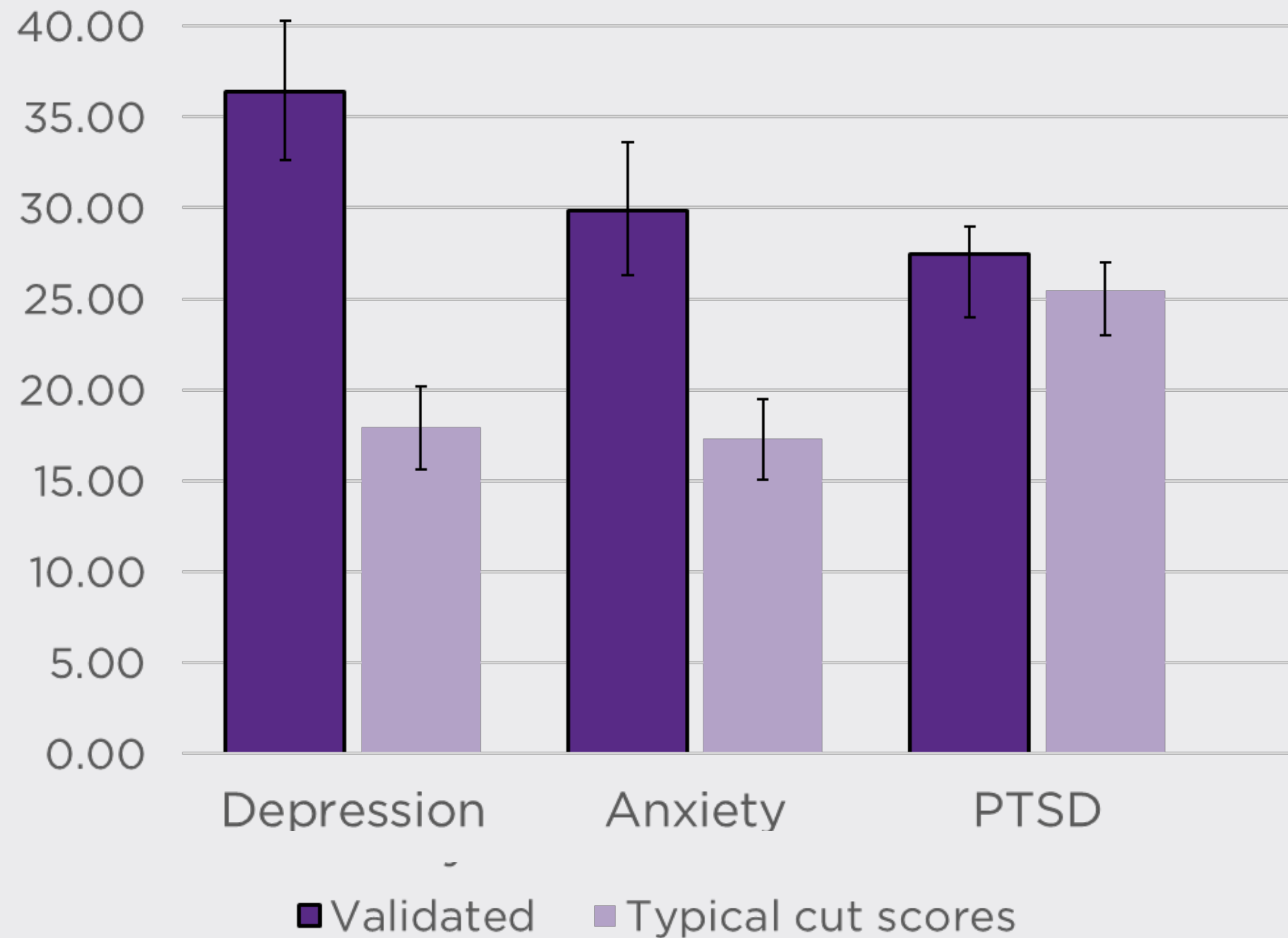
Methods: Respondent Driven Sampling

N=1,349 Filipino Domestic workers



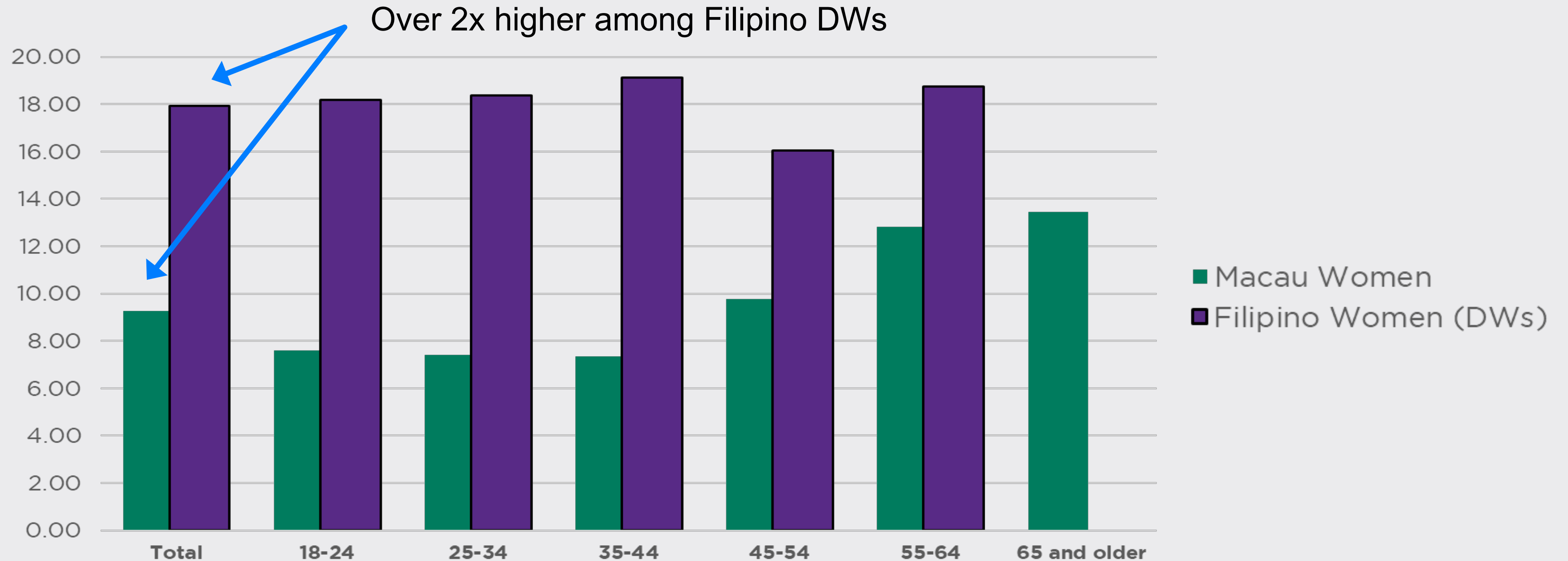
Source: Johnston, L & K. Sabin (2010) Sampling Hard to Reach Populations. Methodological Innovations 5(2), 38-48

Estimated prevalence of common mental disorders



Estimated cases:
17.9% - 36.3% of 200,000 women
= 35,800 - 72,600

Evidence of health inequities: Depression



Hall, B. J., Lam, A. I., Wu, T. L., Hou, W.-K., Latkin, C., & Galea, S. (2017). The epidemiology of current depression in Macau, China: Towards a plan for Mental Health Action. *Social Psychiatry and Psychiatric Epidemiology*, 52(10), 1227–1235. <https://doi.org/10.1007/s00127-017-1415-8>

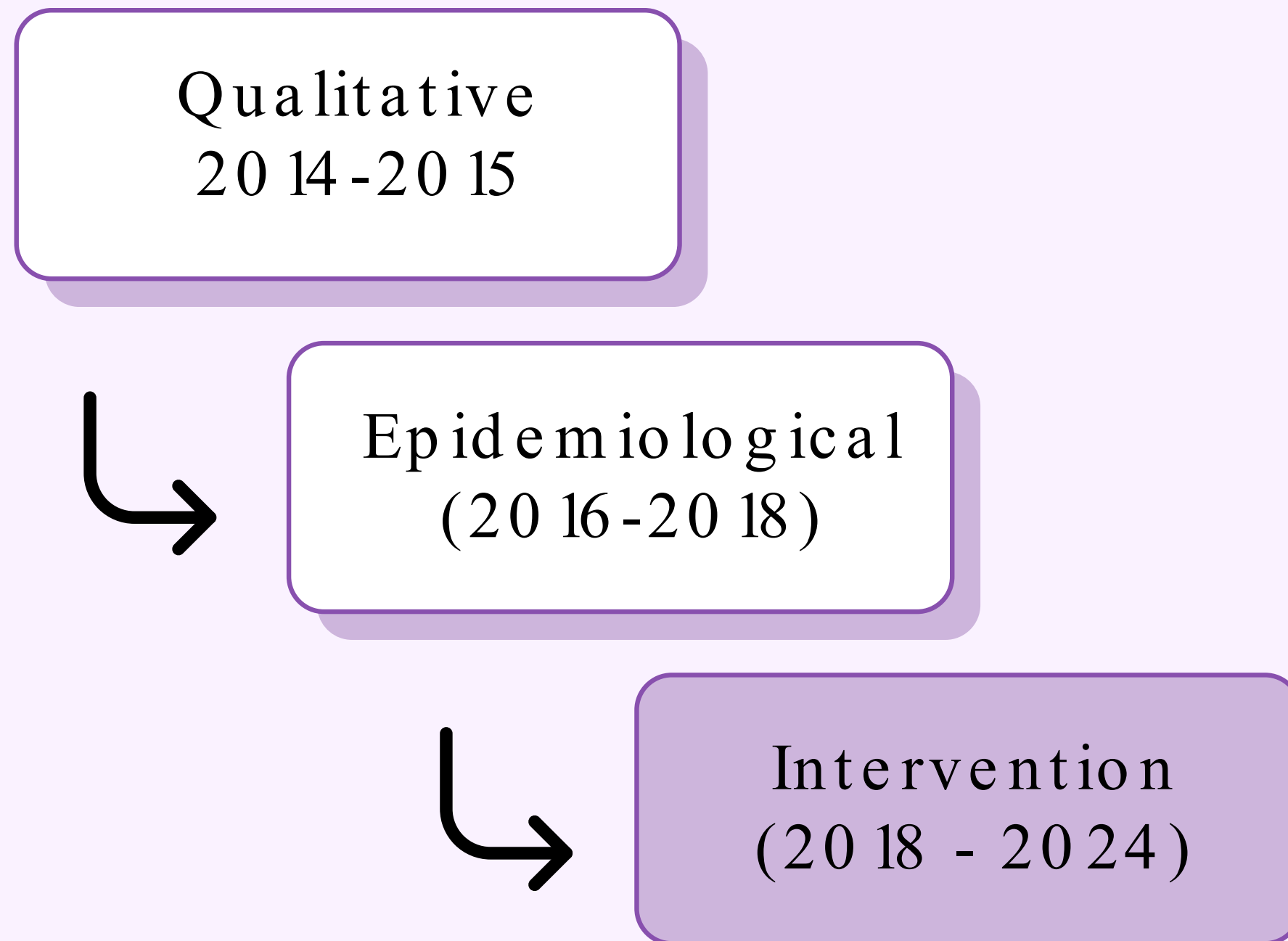
Results from PRIDE (N=1,349)

- What is the expected intervention uptake?
 - 75% said developing services is high or essential need
 - 66% said they would make use of free services
 - 91% own their own smartphone
 - 91% can access the internet
- What type of treatment?
 - 27% said they would participate in a 5-session weekly in-person treatment
 - 65% said they would use web-based or online treatment



Hall, B. J., Shi, W., Garabiles, M. R., & Chan, E. W. W. (2018). Correlates of expected eMental Health intervention uptake among Filipino domestic workers in China. *Global Mental Health (Cambridge, England)*, 5, e33.

Over four years of participatory field work



Step-by-Step; Carswell et al., 2018

- Culturally adapt step-by-step, a WHO scalable intervention

Kumusta Kabayan! Step-by-Step Program

Step-by-Step

Five 20-30 min. sessions



+



Minimal weekly support from E-helper



World Health Organization

(Carswell et al., 2018)

Delivered on smartphone, tablet, and website

Co-facilitation with PWLE

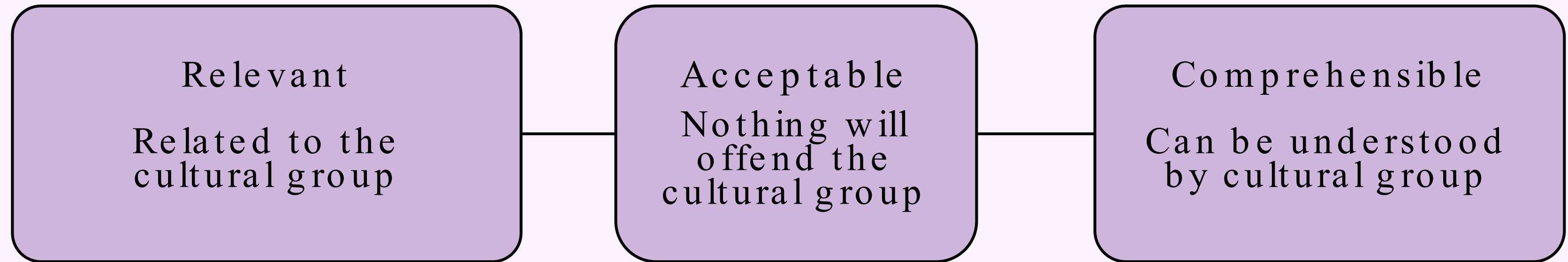
The digital mental health program is minimally facilitated by lay health workers

- Provide support (e.g., technical, psychological) on a weekly basis
- Flexible guidance model:
 - Who: Peer-support; other students who were participants in the feasibility study
 - How: 5-10 min phone call; text messages

"Lived experience peer-support"

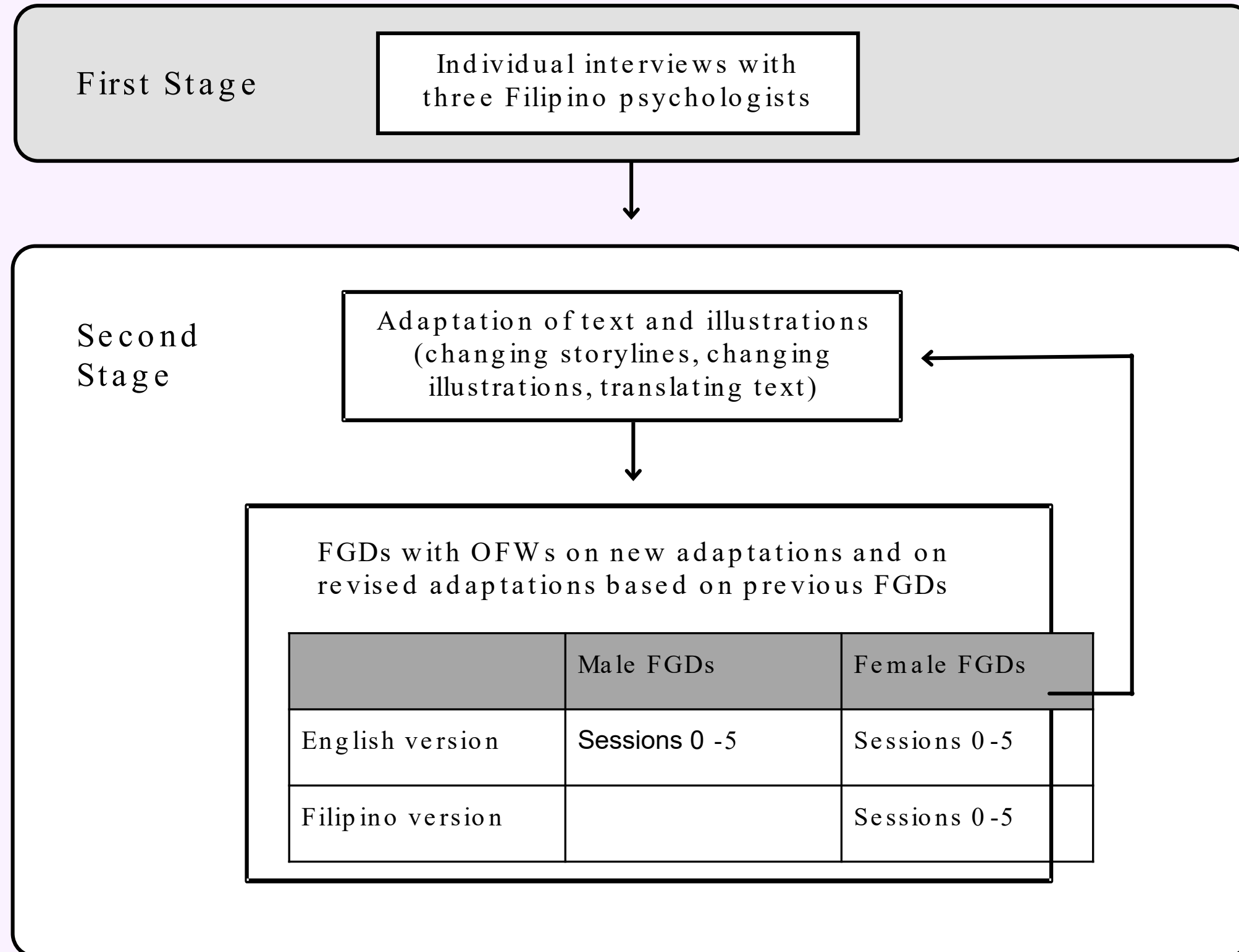


Cultural adaptation



Cultural adaptation – “the systematic modification of an evidence-based treatment or intervention protocol to consider language, culture, and context in such a way that is compatible with the client’s cultural patterns, meanings, and values”

(Bernal et al., 2009)



Cultural adaptation

Interviews with Senior Experts

Based on this feedback, we re-wrote the intervention material, taking their advice as a starting point

- 3 Filipino psychologists
- Online individual interviews
- Considerable experience in practice, including working with OFWs
- Opinions on content of program
- Considerations (i.e., cultural elements, implementation challenges, guidance)

Cultural adaptation

Interviews with
Senior Experts

FGDs with
OFWs

In these meetings we iterated on content and images, with additional feedback requested following each adaptation iteration – cognitive interviewing approach

- 16 FGDs: 7 with men, 9 with women
- 28 OFWs:
 - 12 men from F&B, Hotel and casino, and Facilities management industries; average age: 31 years old
 - 16 women from household service, caregiving, and F&B industries; average age: 37 years old
- Participated at least once
- 2-11 participants per FGD
- Conducted at University and NGO

Cognitive interviewing questions

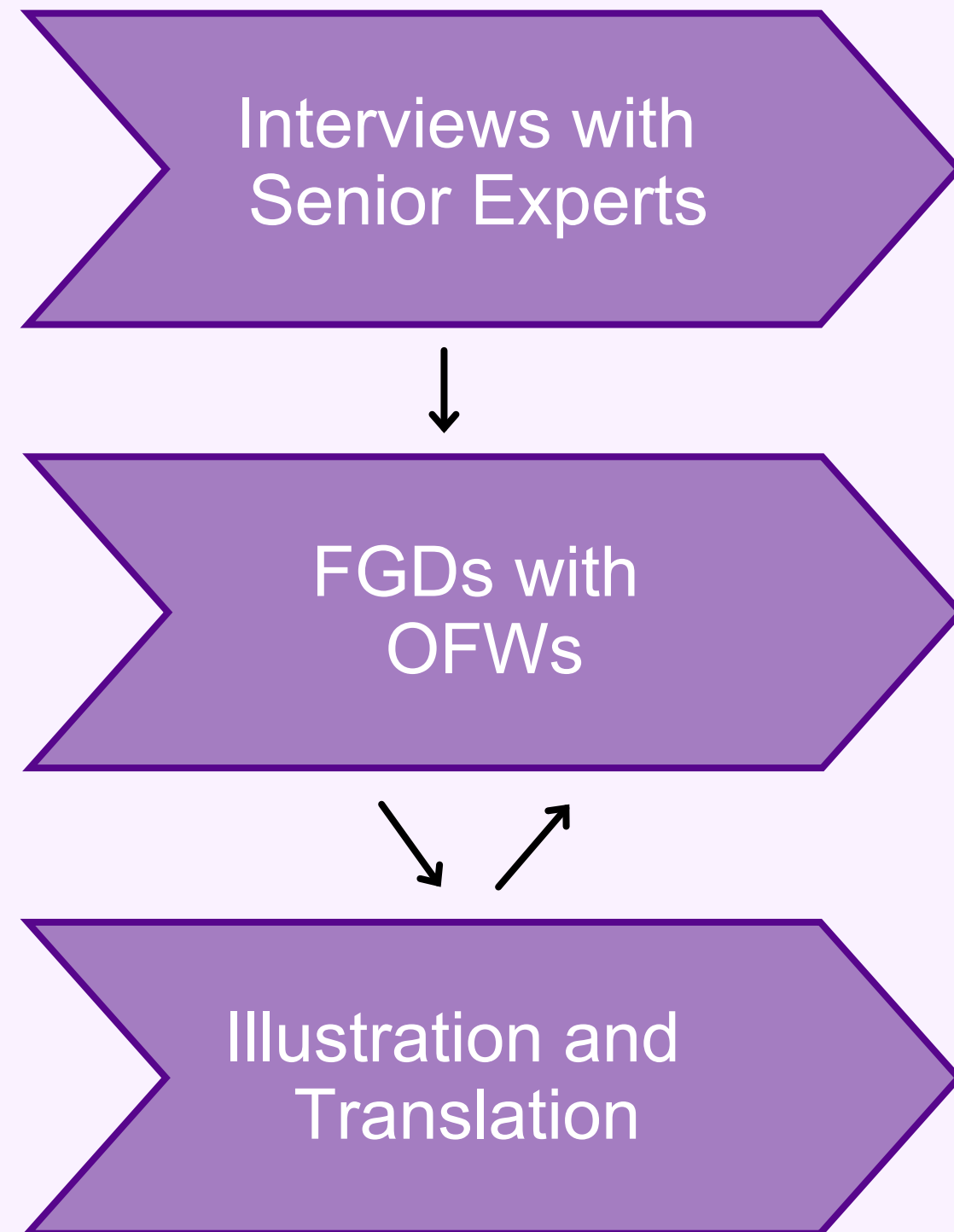
In your own words...

- Tell us what you see on this slide
- Tell us what the text is conveying

We then probed, using open -ended questions, if the content is relevant or relatable, understandable, or acceptable, and the ways by which we can improve the text or illustrations.

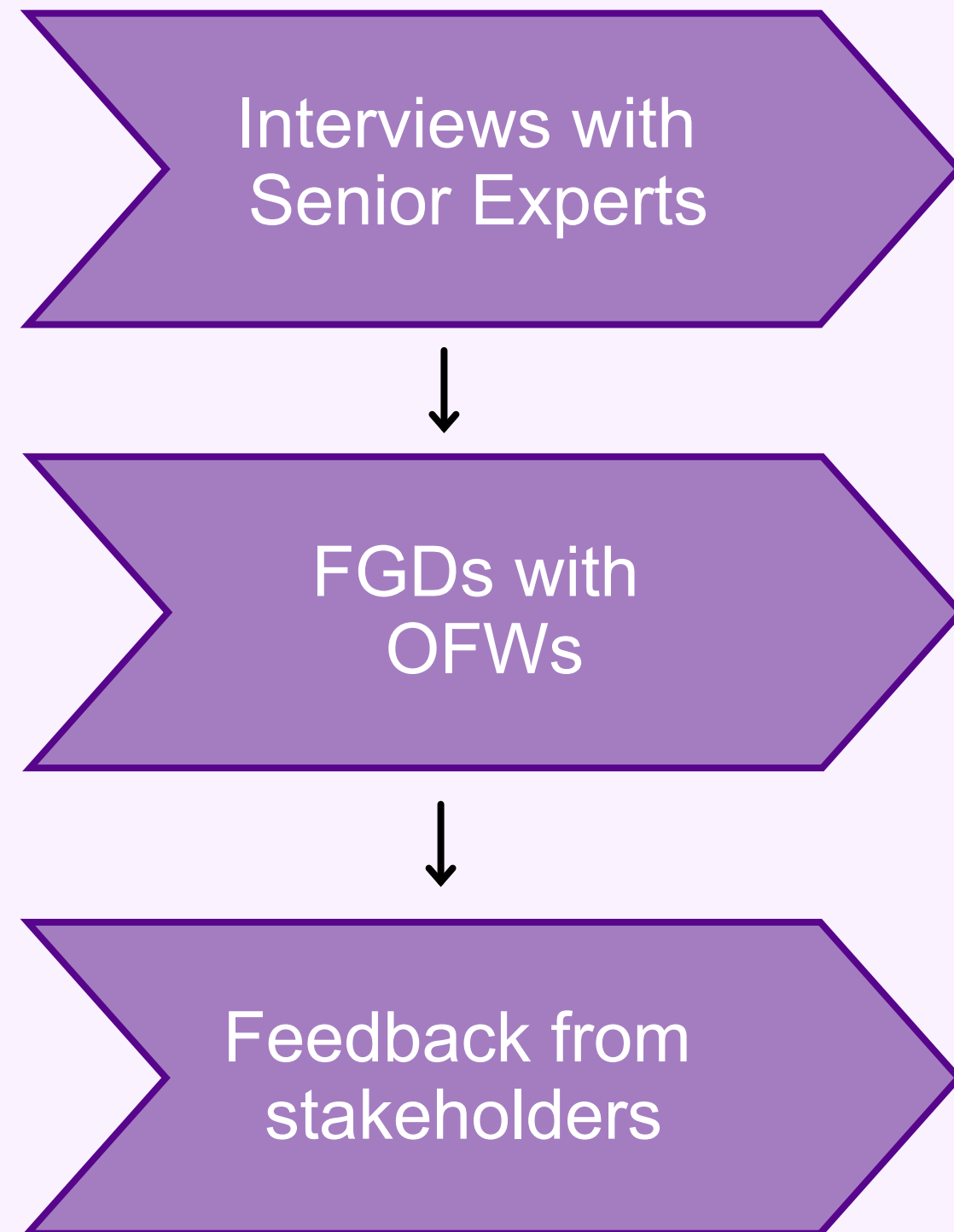
- How might we re -write the text to better explain this concept?
- How might we change the picture to improve it?
- Does the text match the picture?

Cultural adaptation



- Adapt illustrations
 - Professional illustrator
 - Use original SbS illustrations as starting point
 - Send descriptions of changes and sample photos
- Translate texts
 - Professional translator
 - Use original SbS texts as starting point
 - Send changes in text and background info

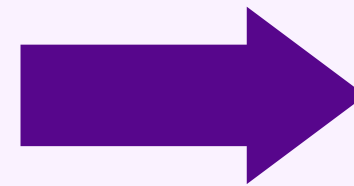
Cultural adaptation



- Adapt illustrations
 - Professional illustrator
 - Use original SbS illustrations as starting point
 - Send descriptions of changes and sample photos
- Translate texts
 - Professional translator
 - Use original SbS texts as starting point
 - Send changes in text and background info

Characters

Names and appearances:
Dr. Maha and Dr. Samer;
Zeina and Karim



Ate Sonia and Kuya Ronald;
Leona and John



Acceptable: Nothing in content will offend the cultural group

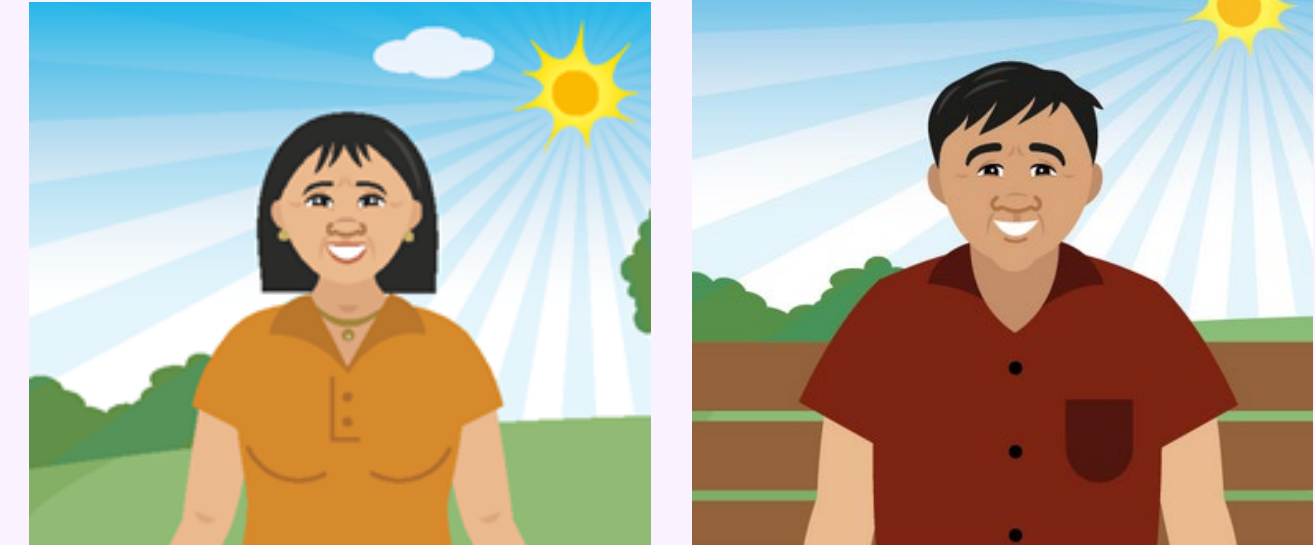
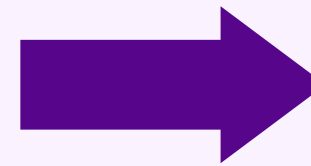
Work around stigma associated with mental health and help-seeking



ORIGINAL

Goal: Help them cope with difficult emotions and problems

Medical doctors

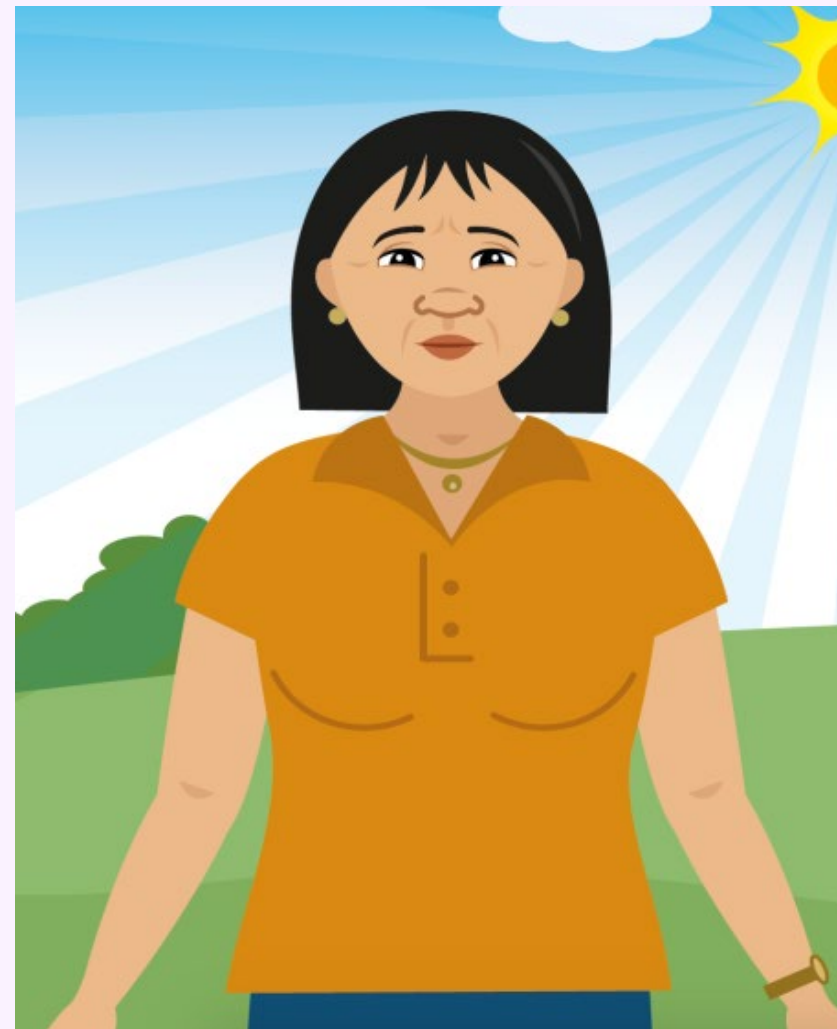


ADAPTED

Goal: Help them become successful OFWs, for their families' sake

Successful, older OFWs

Characters



Characters

Personality of characters:

Both are warm, sweet, caring, personable, relatable yet aspirational, positive, family-oriented, trustworthy, helpful, and humorous

- Call the user “kabayan” (e.g., Kabayan, welcome!)
- Offer encouragement or reassurance to the user
 - Thumbs up sign
 - “Keep up the good work!”, “You can do it!”



Characters

Personality of characters:

Older OFW:

- Wise, wounded -healer, like a mentor or coach
- Calls Leona/John and the user “anak” or “iha/iho”

Younger OFW:

- Fighter but in touch with emotions, willing to learn and improve
- Calls the user “sis” or “bro/pare”



Content

Cultural values:

- Family -orientation
 - Perpetual indebtedness to family
 - Sacrifice for family
 - Family as motivation for going abroad and working hard



Utang-na-loob
Debt of gratitude

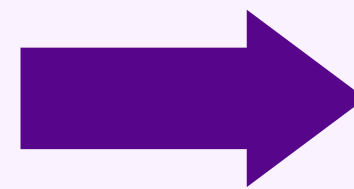
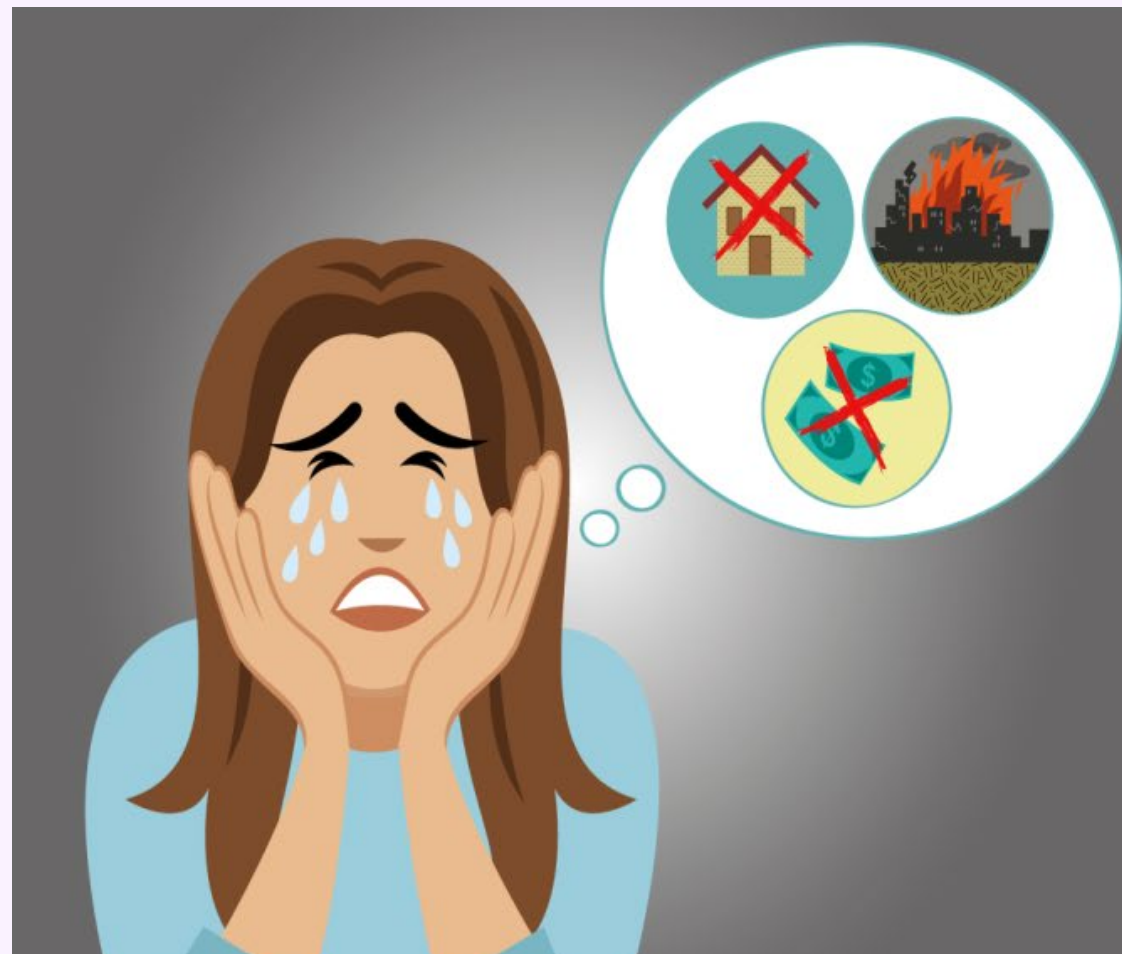
Pakikisama
Dealing well
with others

Bayanihan
Working together
to help someone

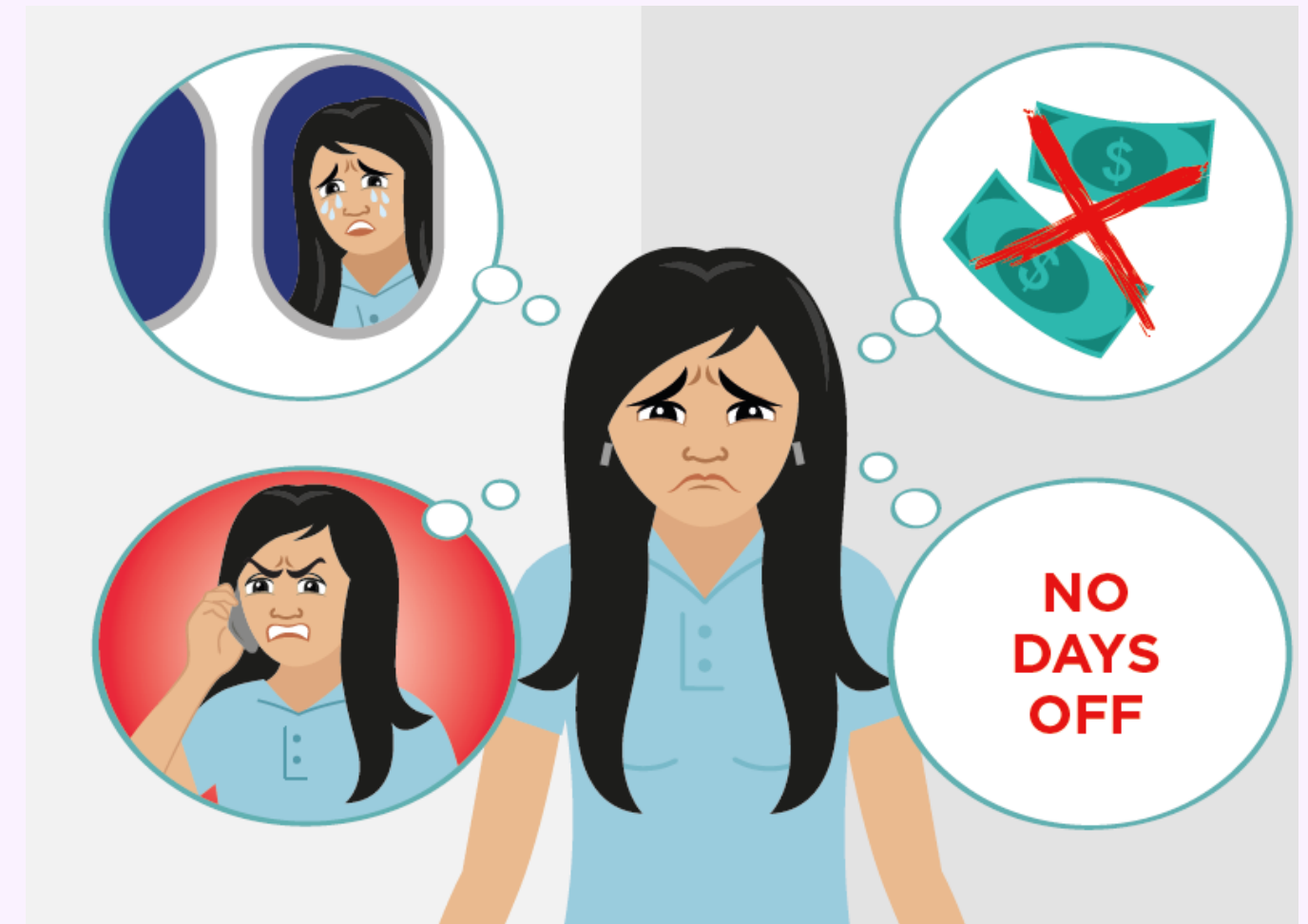
Content: Relevance

Problems: typical problems OFWs face

ORIGINAL



ADAPTED



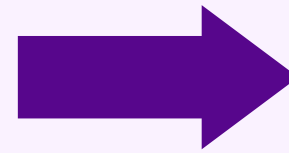
Content

Activities: enjoyable and possible



ORIGINAL

- Spending time with family



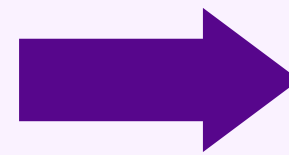
ADAPTED

- Spending time with family online

Content

Activities: enjoyable and possible

ORIGINAL



ADAPTED



- Planting herbs



- Having family reunion



- Visiting historic sites



- Singing videoke with friends

Content

Adjustment to words and phrases

ORIGINAL

Skills

Suffering

Using drugs (as negative coping)

Staying in bed all day (as negative coping)

Drinking alcohol (as negative coping)



ADAPTED

Techniques (not like a skilled worker)

Stressed (less grave-sounding)

[Removed]

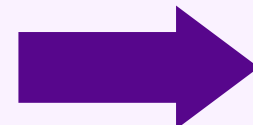
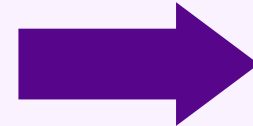
[Removed]

Drinking too much alcohol

Content

ORIGINAL

- Male and female: Providing support to friends
- Male: Going to work
- Female: Doing housework



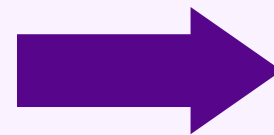
ADAPTED

- Male and female: Providing support to family through remittances and balikbayan boxes
- Male and female: Preparing to go to work



Comprehensible: Can be understood by cultural group

ORIGINAL



ADAPTED



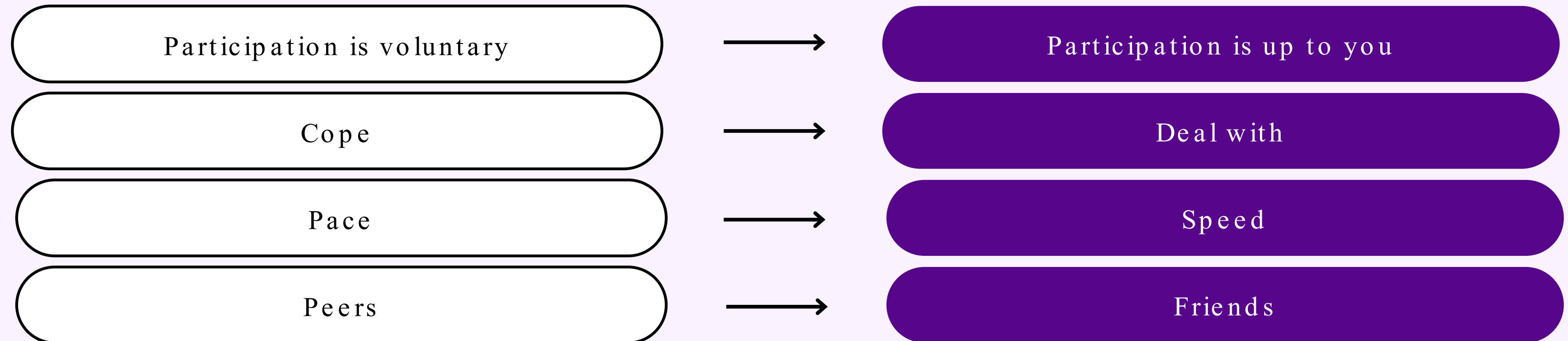
As well as feeling really sad, often I was angry too, arguing a lot with my family. I'd stopped seeing most of my friends. I didn't want to talk to people much anymore. And I didn't want people to know how I felt. I just couldn't enjoy anything.

Comprehensible: Can be understood by cultural group

- Translate into Filipino or Taglish
- Shorten long sentences or divide into 2 sentences
- Simplify words and phrases
- Add extra words/lines to clarify or explain a term or idea

ORIGINAL

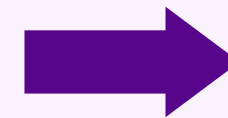
ADAPTED



Improved acceptability

ORIGINAL

ADAPTED



Improved acceptability and relevance

ORIGINAL

ADAPTED



Limitations and Challenges

All illustrations should be drafted before FGDs

Due to the working schedules of the OFWs, our FGDs took place on Saturday nights and Sundays, which lead to fatigue

Are FGDs optimal or are individual interviews best?

It is not clear how much adaptation is needed, how much tailoring is needed – for example, LGBT, young, older

Although we incorporated Filipino values and attempted to make the program highly relevant, it still may not fit the strong desire for socialization and community

Implementation challenges

Evaluating the implementation of the app

Kumusta Kabayan, a mobile phone-based mental health app, was evaluated using an implementation science framework to address mental health needs of OFWs in Macao.

Study Objectives:

- Evaluate stakeholders' perspectives on the implementation of Kumusta Kabayan.
- Assess the app's effectiveness and feasibility for OFWs in Macao.
- A mixed-methods convergent design was used, involving online surveys with Filipino team members and NGO staff (N = 12) to collect quantitative data, and one-on-one interviews with OFWs in Macao (N = 25) to gather qualitative insights.
- Quantitative measures included organizational climate, awareness and concern, perceived advantage, perceived complexity, and level of success. Qualitative interviews explored participants' experiences.

Stakeholder Members' Roles

University	NGO
<ul style="list-style-type: none">-Fund the app development and study-Design and develop the app and its components-Design the study methodology and report the results-Coordinate the collaborative works-Train e-helpers	<ul style="list-style-type: none">-Fund the app development-Give feedback of the logistic matters (i.e. reward type, promotion methods, etc.)-Promote the app-Incorporate the app to NGO's service-Assist with study incentives
End-user	E-helper
<ul style="list-style-type: none">-Use the app-Give feedback on using the app	<ul style="list-style-type: none">-Do welcome contact-Assist the end-users in using the app-Reach out inactive users

Liem, A., Pakingan, K. A., Garabiles, M. R., Sit, H. F., Burchert, S., Lam, A. I. F., & Hall, B. J. (2022). Evaluating the Implementation of a Mental Health App for Overseas Filipino Workers in Macao China: A Mixed-Methods Study of Stakeholders' Perspectives. *Frontiers in Psychiatry*, 13, 836156.

Evaluating the implementation of the app: Results

Quantitative Findings

Organizational Climate:

- Median scores were 4 (Macao) and 5 (Philippines), indicating strong adaptability of Kumusta Kabayan into their programs.
- Macao staff had concerns about infrastructure support, scoring lower on this aspect compared to other sub-scales and the Philippines team.

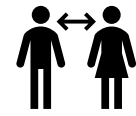
Awareness and Concern:

- Both groups were well aware of the app's purpose, with a median score of 4 in both regions.
- Both groups believed the app would be beneficial for OFWs, though their views on the app's complexity were mixed.

Generally, both teams believed Kumusta Kabayan achieved its goals

Liem, A., Pakingan, K. A., Garabiles, M. R., Sit, H. F., Burchert, S., Lam, A. I. F., & Hall, B. J. (2022). Evaluating the Implementation of a Mental Health App for Overseas Filipino Workers in Macao China: A Mixed-Methods Study of Stakeholders' Perspectives. *Frontiers in Psychiatry*, 13, 836156.

Evaluating the implementation of the app: Results



Promotional Channel and Expectation

Findings from the interviews are categorized into six key aspects of their experiences:

- Social media, flyers or news about the launch, friends, the Philippines Consulate in Macau, and Caritas Macau
- Participants expected it to assist in managing emotions and facilitate sharing experiences and connecting with other OFWs



When to Use and in Which Language

- Frequent users used app daily; partial users mainly used the app on weekends during days off.
- Both English and Filipino versions were used; some participants found psychological terms difficult to understand, especially in English.



Lessons Learnt

- Participants learned reflective thinking, self-checking, and managing emotions.
- They learned to handle stress through focus-dividing and self-care, and the importance of seeking social support and opening up to others.

Liem, A., Pakingan, K. A., Garabiles, M. R., Sit, H. F., Burchert, S., Lam, A. I. F., & Hall, B. J. (2022). Evaluating the Implementation of a Mental Health App for Overseas Filipino Workers in Macao China: A Mixed-Methods Study of Stakeholders' Perspectives. *Frontiers in Psychiatry*, 13, 836156.

Evaluating the implementation of the app: Results



Memorable Aspects

Findings from the interviews are categorized into six key aspects of their experiences:

- Participants found the name "Kumusta Kabayan" easy to understand.
- Relatable stories and characters were received positively. Breathing exercises were memorable for stress relief.



Key Facilitators and Barriers

- Facilitators: Easy accessibility on app store and small app size.
- Barriers: Limited free time, technical incompatibilities, poor connectivity, digital literacy, forgetting login details, changing phone numbers, and psychological triggers.

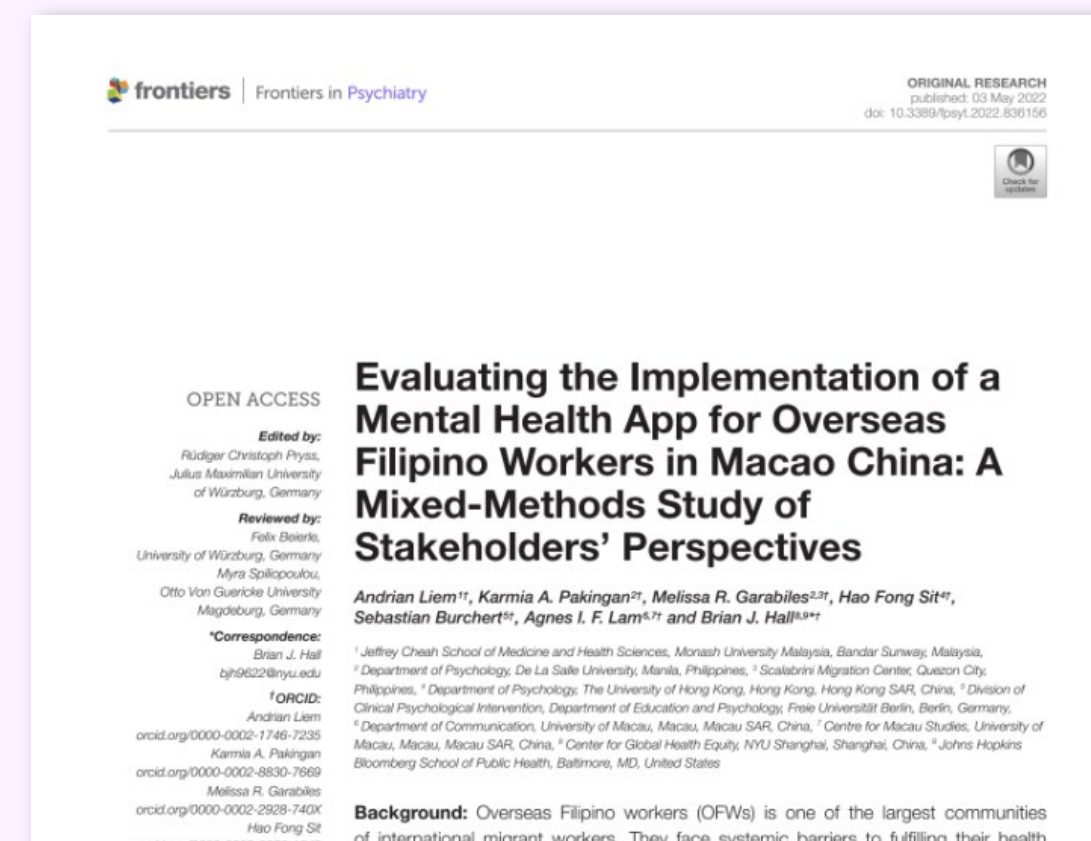
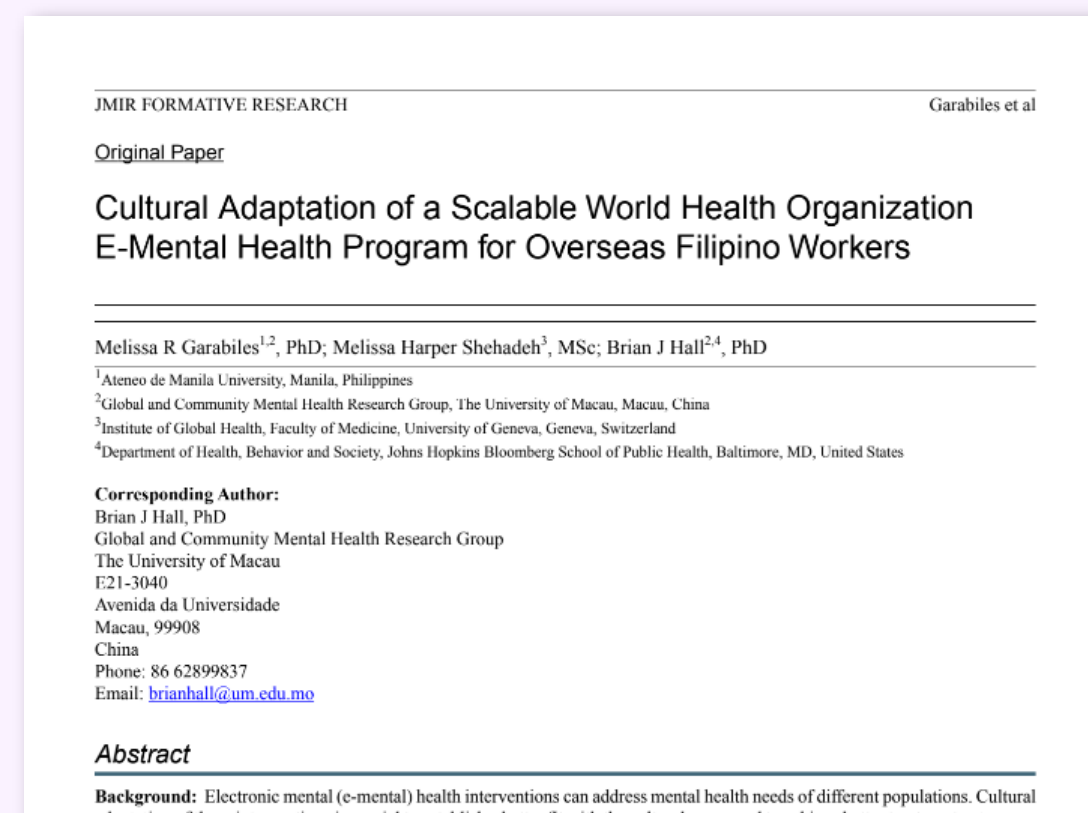


Suggestions for Improvement

1. Connectivity
2. Connectedness
3. Content
4. Feedback on questionnaires
5. Add-ons
6. Promotional methods

Liem, A., Pakingan, K. A., Garabiles, M. R., Sit, H. F., Burchert, S., Lam, A. I. F., & Hall, B. J. (2022). Evaluating the Implementation of a Mental Health App for Overseas Filipino Workers in Macao China: A Mixed-Methods Study of Stakeholders' Perspectives. *Frontiers in Psychiatry*, 13, 836156.

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