

Social Participation and Life Satisfaction of Employees in the Academe using Online Survey and Key Informant Interview

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ABSTRACT

Background and Objective. Humans need constant interaction for a better well-being. It is advisable to actively participate socially to acquire psychological support and elicit satisfaction. In fact, social participation is a key driver of life satisfaction among the elderly. This study aims to describe social participation and life satisfaction among employees of a premier university in Manila, Philippines and infer their relationship through activity theory.

Methods. Seventy-one participants ages fifty years and older as of June 30, 2020 representing various employee categories participated in the online survey: a) faculty; b) research extension and professional staff; and c) administrative staff. Ten key informant interviews (KIIs) were likewise conducted to determine their opinions and perceptions on social participation in campus.

Results. Social media usage and “mallong” ranked the highest, contributing to 76% and 48% of the activities for indoor and outdoor activities, respectively. In terms of membership, professional organizations comprised 69%. On the other hand, 68% of organization members were elected officers. The relationship between social participation and life satisfaction were observable as indicated by the high rate of social participation and low percentage of participants who reported life dissatisfaction (4%).

Conclusions. High levels of social participation in terms of indoor and outdoor activities; membership including activeness in organizations; as well as positions held in organizations may indicate high levels of life satisfaction. Further research on a large sample size may explore statistical analysis on the longitudinal effects of social participation and life satisfaction.

Keywords: social participation, life satisfaction, older employees, activity theory

INTRODUCTION

Human beings are sociable and in need of interaction for survival and better well-being.^{1,2} These interactions shape mental, social, behavioral, and physical health especially on aging people.³ Even in later period of life, it is advisable to actively participate socially and maintain contact with friends, family, and neighbors to acquire psychological support and elicit satisfaction.⁴

However, social participation lacks consensus on its definition which poses consequences on its technical and social usage.⁵⁻⁷ Ultimately, social participation has been defined as a “person’s involvement in activities that provide interaction with others in society or the community.”⁸ It encompasses both outdoor and indoor activities. Both activities, regardless of the setting, are crucial in fostering social interaction.⁹

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Furthermore, social participation is also deemed as one of the major components of an age-friendly community and supports the social capital theory which proposes that social networks prompt individual's life satisfaction.¹⁰⁻¹²

Social participation is deeply rooted to subjective well-being, happiness, and life satisfaction.¹³ Life satisfaction and subjective well-being, though used interchangeably, are not the same, but interrelated.¹⁴ Life satisfaction refers particularly to the cognitive component of one's life and is synonymous to "life contentment."¹⁵

This paper describes social participation as well as life satisfaction among employees of the University of the Philippines Manila (UPM) ages 50 years and above. It likewise infers the relationship between social participation and life satisfaction without direct statistical assessment.

Specifically, the study aims to:

1. describe the social participation of UPM employees as determined by their various activities such as the following:
 - a. common indoor activities;
 - b. common outdoor activities;
 - c. membership in organizations;
 - d. activeness in organizations;
 - e. position held in organizations;
2. determine their overall life satisfaction;
3. extract contextual insights acquired from key informant interviews (KIIs) regarding social participation and life satisfaction; and
4. theoretically associate social participation and life satisfaction.

The conceptual framework is anchored on activity theory that posits relationship of social participation (independent variable) and life satisfaction (dependent variable) (Figure 1).

Social engagement fosters better life satisfaction. As the activity theory posits, high level of participation is a determinant of one's life satisfaction.¹⁶ Activity theory is the positive relationship between levels of activity and life satisfaction which in turn improves adjustment in the later life.¹⁷

The study may aid in understanding the relationship between social participation and life satisfaction. It could also contribute to the existing literature on life satisfaction in promoting social participation among the near elderly

employees by offering insights on how increased social participation positively influences one's assessment of their life satisfaction. Most importantly, this study could serve as a model in crafting necessary programs, interventions, and activities for nearly elderly employees.

MATERIALS AND METHODS

Study Design

The data for this paper were part of the University of the Philippines Manila Wellness Initiative for Seniors and Elders (UPMWISE) specifically from Project 1: Collaborations and assessments of health and well-being.

Study Population

The inclusion and exclusion criteria for the survey participants were as follows:

Inclusion criteria:

1. current UPM Faculty, Administrative staff, and REPS;
2. ages 50 years and above as of 30 June 2020;
3. regular or non-regular employee;
4. able to communicate in writing and respond to questions personally;
5. has access to internet and can use online channels during data collection; and
6. able to provide consent.

Exclusion criteria:

1. retired UPM Faculty, Administrative staff, and REPS;
2. ages 49 years and below as of 30 June 2020;
3. unable to communicate in writing and respond to questions personally;
4. has no access to internet and cannot use online channels during data collection; and
5. unable to provide consent.

Of the eligible 480 participants or those ages 50 years and above as of 30 June 2020, 223 were selected using stratified random sampling, with 95% confidence level and employment classification as a stratifying variable.

Learning from the previous UPWISE program conducted in Diliman and Los Baños, as well as adjusting for about 30% non-response, there were also 67 replacements. To ensure representativeness, proportionate allocation per employment classification was computed.

The original participant was reminded every three days to answer the survey. After three reminders with no response, a replacement was invited instead.

Only 71 participants completed the online survey. As shown in Table 1, they represent currently UPM faculty, administrative staff, including the Research Extension and Professional Staff or REPS.

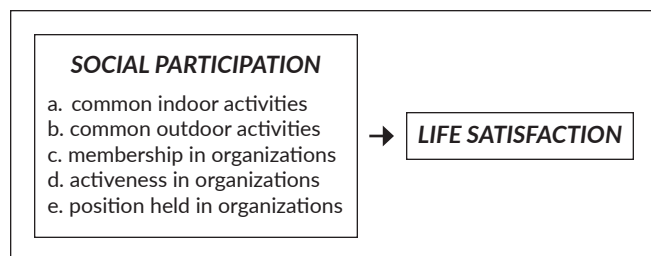


Figure 1. Conceptual framework of the study.

Table 1. Survey Participants by Employee Designation

Designation	Population Size	Randomly Sampled	Replacements	Completed the survey
<i>Faculty</i>	298	138	41	41
<i>Administrative Staff</i>	161	70	23	9
<i>REPS</i>	21	9	3	21
Total	480	223	67	71

Aside from the online survey, qualitative data regarding social participation and life satisfaction were also gathered through KIIs. Ten participants with various designations were interviewed as shown in Table 2.

Data Collection

From 2 September 2022 until 14 October 2022, seventy-one employees or 33% of the total sample size joined the online survey while five Heads of Offices, one REPS, and four Administrative Staff were interviewed as key informants (Table 2).

For UPMWISE Project 1, two blocks such as the 1) work environment; and 2) World Health Organization-Five Well-being Index (WHO-5) were added to the original UPWISE questionnaire. To further improve it, some questions were reworded or rephrased for clarity and respect. In general, the questionnaire was in Tagalog while the guide questions for the key informants were both in English and Tagalog.

Fifty-eight employees refused to participate due to reasons like busy schedules (19%), personal reasons (3%), or being on sabbatical leave (3%) whereas 69% of the participants did not state their reasons (Table 3).

To determine social participation, the following questions were asked: common indoor and outdoor activities; including membership, activeness, as well as position held in organizations. On the other hand, the life satisfaction was asked about their life contentment on a scale of one to five.

The key informants discussed support and social participation; respect and inclusion; and civic participation during the online interview via Zoom.

Table 3. Reasons for Refusal of Online Survey Participants as of 3 October 2022

Reasons for Refusal	Total (n = 58)	
	Frequency (f)	Percentage (%)
<i>No reason stated</i>	40	69
<i>Busy schedule</i>	11	19
<i>Declined due to personal reasons</i>	2	3
<i>On sabbatical leave</i>	2	3
<i>Not willing to share the very personal required information</i>	1	2
<i>On a clinical trial study</i>	1	2
<i>Recovering from an accident</i>	1	2

Missing = 94

Table 2. Designations of Key Informants

Designation	Number
<i>UPM Heads of Offices: HRDO, OVCAA, UPHS, CPDMO and REPSA</i>	5
<i>Administrative Staff</i>	4
<i>REPS</i>	1
Total	10

Data Analysis

Descriptive statistics such as frequencies and percentages were used to analyze data. It does not intend to make inferences. As mentioned earlier, the relationship between social participation and life satisfaction is inferred without direct statistical assessment.

Ethical Considerations

The University of the Philippines Manila Research Ethics Board (UPMREB-2022-0092-01) reviewed and approved the study protocol. Individual informed consent was obtained from the research participants prior to the conduct of the online survey and interviews.

RESULTS

Majority of the participants (61%) were ages 60 and below. Seventy-six percent were females while 24% were males (Table 4).

Regarding indoor social participation, 76% used social media during regular days. Both praying and cleaning the house was at 70% (Table 5).

Table 4. Socio-demographic Characteristics of Respondents

Socio-demographic characteristics of respondents	Total (n = 71)	
	Frequency (f)	Percentage (%)
Age		
Less than 60	43	61
60 and over	28	39
Sex		
Female	54	76
Male	17	24
Religion		
Roman Catholic	60	85
Other Christian denomination	9	13
Islam	1	1
No religion	1	1
Highest educational attainment		
College level/graduate	16	23
Master's degree/units	26	37
Doctoral degree/units	29	41
Civil status		
Formally married	48	68
Living-in	2	3
Never married	18	25
Widowed	3	4

Meanwhile, for outdoor activities, “mallng” was the highest at 48% while engaging in socio-civic and religious activities was 37% (Table 6).

Aside from indoor and outdoor social engagements, the respondents were also members of various organizations, both professional and personal. Employees were members

Table 5. Response to the question, “Anu-ano po ang inyong mga gawain o ginagawa sa loob ng bahay sa karaniwang araw?” (What indoor activities do you do on a regular day?)*

Description of activity	Total (n = 71)	
	Frequency (f)	Percentage (%)
Social media (Facebook, Twitter, Instagram, etc.) / Video conference platforms (Zoom, Google Meet, etc.)	54	76
Praying	50	70
Cleaning the house	50	70
Watching TV	42	59
Cooking	32	45
Exercising (Zumba)	30	42
Gardening	30	42
Washing clothes	26	37
Professional responsibilities	15	21
Taking care of children	14	20
Taking care of grandchildren	6	8
Other household chores	5	7
Providing online services	2	3
Religious activities	2	3
Leisure and recreational activities	1	1

*Multiple response

Table 6. Response to the question, “Maliban po sa inyong trabaho, anu-ano pa ang mga karaniwan ninyong gawain o ginagawa sa labas ng bahay sa loob ng isang araw?” (Aside from work, what other activities do you usually do outdoors within the day?)*

Description of activity	Total (n = 71)	
	Frequency (f)	Percentage (%)
“Pasyal”/“mallng”	34	48
Engaging in socio-civic and religious activities	26	37
Family and friends matters	9	13
Other household chores	9	13
Leisure and recreational activities	6	8
Chatting with neighbor	5	7
Professional responsibilities	2	3
No answer (Walang sagot)	5	7

*Multiple response

of professional organizations (69%), alumni organizations (46%), and church groups (31%) (Table 7).

Moreover, Table 8 shows that the participants were particularly active in the following organizations: professional organizations (62%); church groups (36%); and alumni organizations (30%).

Table 7. Response to the question “Sa kasalukuyan, sa anu-anong organisasyon ang kinabibilangan po ninyo?” (As of now, what organizations are you part of?)*

Organization	Total (n = 71)	
	Frequency (f)	Percentage (%)
Professional organizations	49	69
Alumni organizations	33	46
Church groups	22	31
Volunteer groups	13	18
Cooperative	9	13
Senior citizen's organizations	3	4
Civic organizations	3	4
Non-Governmental Organizations (NGOs) and Foundations	3	4
Other school organizations	2	3
Environmental groups	1	1
Friends / Support groups	1	1
Homeowner's Member	1	1
Foundations	1	1
No answer (Walang sagot)	1	1
None	9	13

*Multiple response

Table 8. Response to the question, “Sa aling mga organisasyong ito po kayo aktibo?” (Which of these organizations are you active?)*

Organizations	Total (n = 61)	
	Frequency (f)	Percentage (%)
Professional organizations	38	62
Church groups	22	36
Alumni organizations	18	30
Volunteer groups	11	18
Cooperatives	4	7
Civic organizations	3	5
Friends / Support groups	2	3
Non-Governmental Organization (NGO)	2	3
Senior citizen's organizations	2	3
Environmental groups	1	2
Foundations	1	2
Other school organizations	1	2
None	7	11

*Multiple response; with at least one organization in Table 7

Table 9. Response to the question, “*Sa mga organisasyon na kinabibilangan ninyo, ano po ang pinakamataas ninyong naging posisyon?*” (Of the organizations that you were part of, what was your highest position held?) *

Position	Total (n = 60)	
	Frequency (f)	Percentage (%)
Officer	41	68
Member	19	32

*With at least 1 organization in Table 7; n=1 missing information

Table 10. Response to the question, “*Kung pagsasamasamahin ang lahat ng mga aspeto ng inyong buhay, masasabi n’yo po bang kuntento na kayo?*” (Considering all aspects of your life, would you say that you are already content?)

Description	Total (n = 71)	
	Frequency (f)	Percentage (%)
Strongly agree (Matindi ang pagsang-ayon)	16	23
Agree (Sumasang-ayon)	44	62
Neutral	8	11
Disagree (Hindi sumasang-ayon)	3	4

Sixty-eight percent of the participants with organizations were elected as officers whereas 32% were members of their organization (Table 9).

For life satisfaction, more than half of the participants agreed (*sumasang-ayon*) that they are contented with their life in all aspects. Another 23% strongly agreed (*matindi ang pagsang-ayon*) that they are contented in life. Only 11% and 4% answered neutral and disagree (*hindi sumasang-ayon*), respectively as shown in Table 10.

In terms of community support and social participation, UPM built collaborations and programs with colleges or offices for all employees such as participation in team-building activities, Christmas parties, Zumba sessions, including anniversaries. Few of the notable partnerships stem from National Institutes of Health (NIH), Philippine General Hospital (PGH), and Department of Rehabilitation Medicine (PGH Senior Citizens and Persons with Disability Committee). These collaborations aimed to increase the social participation of employees.

The university also ensured inclusivity among all ages as reflected from the prepared plans of UPM for senior citizens which include periodic health check-up, seminars and workshops, including group exercises. Moreover, the KIIs also stressed activities done on Foundation Day, Christmas parties, and birthdays of the employees.

DISCUSSION

Seventy-six percent of the survey participants spend their time on social media and 70% clean and pray within the

home. Meanwhile, 48% of the participants prefer to go for walks or to the mall. Nowhere in the world has a population deeply rooted to shopping malls, except the Philippines.¹⁸ In fact, only Filipinos are known to use “mall” as a verb which implies its strong ties to Filipino culture.¹⁹ Hence, the “mall culture” of the Filipinos could be associated with the 48% of participants who prefer “mall”.

In terms of organizational membership, 69% reported to be members of professional organizations while 46% in alumni associations. From the pool of organizations, professional organizations received the highest active rate with 62%; and 68% hold office in the organization. A study by Pihlblad in 1972 also found that participation to formal organizations contributed the most in determining the respondents’ life satisfaction, with friend associations and family contacts ranking in the second and third place, respectively.²⁰

Citing Filipino psychology, the concept of dependency and life satisfaction is valued among Filipino elderly. Dadang and Mendoza (2016) concluded that life satisfaction is deeply connected to solidarity and good relationship within an organization and family.²¹ Furthermore, the *Bayanihan* spirit can also be observed. It is a Filipino value that embodies unity and cooperation with mutual respect and support that assures fellowship and togetherness amidst life’s challenges.²²

Moreover, based on the KIIs, collaborations with offices and colleges were tied to ensure that UPM employees ages 50 years old and above were socially involved and active. Other collaborations aside from NIH, PGH, and PGH Senior Citizens and Persons with Disability Committee also include the following offices: Department of Environmental and Occupational Health of the College of Public Health, College of Allied and Medical Professions (CAMP), Philippine National Ear Institute (PNEI), Philippine Eye Research Institute (PERI), UPM Human Resource and Development Office (HRDO), National Teacher Training Center (NTTC), Department of Family and Community Medicine of the College of Medicine, Department of Ophthalmology and Visual Sciences, Department of Orthopedics, Department of Obstetrics and Gynecology, and Department of Dermatology. These initiatives ensure inclusivity among employees, regardless of age.

Additionally, concerned employees were also encouraged to engage and participate in physical activities namely, team-building activities, Christmas parties, and Zumba sessions. The informants also stressed the willingness of employees to increase their participation should more programs be dedicated for UPM employees ages 50 years old and above.

The academic calendar of UPM for the year 2022 also prepared plans and programs dedicated for senior citizens which include periodic health check-ups, seminars and lectures, as well as scheduled group exercises. All UPM employees, specially catering ages 50 years and above, are encouraged to participate in the university activities. This step ensures that employees are participative of social

activities regardless of age while making sure that these are fit for elderly employees.

These initiatives were reflected in the life satisfaction survey which yielded significant positive figures. With only four percent of the participants disagreeing on their life contentment, majority of the employees were deemed satisfied with their life. Notably, 62% agree and 23% strongly agree that they are satisfied in all aspects of their life already. It has been established that there is a strong association of social networks and engagements with life satisfaction.²³

The Healthy University Framework and 2023 Health and Safety Policy was launched by then Chancellor of UPM. There was a felt “need to harmonize the programs and services in the University for the health and safety of both its workers and students as guided by recent policy frameworks.” With the Healthy University Office, consistent and sustained efforts will likely improve the health of the employees and their life satisfaction.

Following activity theory, the results shown in Tables 5-10 mean that there is a theoretical implication between social participation and life satisfaction given low numbers of participants who reported life dissatisfaction and considerably high number of participants who socially participated. A study on older people in General Santos City, Southern Mindanao also cited activity theory as the basis of the theoretical relationship of social participation and life satisfaction: “The high or low levels of participation in the activities determine the levels of life satisfaction of the older people because their participation and involvement in the various activities give them the opportunity to interact with other people.”²⁴

Additionally, successful aging is defined as actively engaged and psychologically sound in later life, while active aging is the optimization of an individual’s capabilities while engaging in the community.^{14,25} Thus, this study which likewise include employees ages 60 and above prompts United Nations Sustainable Development Goal 3: healthy lives and promotion of well-being for all ages which integrates care of older persons in the multidimensional needs of the aging population.

Limitations of the Study

A limitation of the study is the lack of consideration on factors such as personality traits, socio economic status, and lifestyle characteristics that may affect life satisfaction and the ability of the employees to participate in activities.¹⁷ For example, an introverted participant may prefer solitary activities rather than social participation, yet the level of life satisfaction is just as good. Furthermore, due to the small sample size, internal and external validity is affected.²⁶ Analyses such as subgroup, interaction, or sensitivity are not feasible. The study is purely descriptive in nature and does not intend to make inferences, however, it is still a valuable contribution to the understanding of social participation and life satisfaction of employees in UPM.

CONCLUSIONS AND RECOMMENDATIONS

Despite the lack of direct statistical analysis on the correlation between social participation and life satisfaction, it can be surmised that high levels of participation constitute high levels of life satisfaction among UPM employees. The results show that high engagement in social participation (i.e., common indoor activities; common outdoor activities; membership; activeness; and position held in organizations) reflect the reason behind their overall life contentment and satisfaction.

To ensure that employees are still socially participative and engaged despite their age, a “social club” for UPM employees must be organized. It would allow them to socialize and share their life experiences, aside from their civic participation and involvement in various organizations in church and their community.

Additionally, future studies may consider a larger sample size to employ robust statistical analyses such as subgroup, interaction, or sensitivity.

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Statement of Authorship

Both authors certified fulfillment of ICMJE authorship criteria.

Author Disclosure

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REFERENCES

1. Nyborg K. No man is an island: social coordination and the environment. *Environ Resour Econ*. 2020 Mar;76(1):177-93. doi:10.1007/s10640-020-00415-2.
2. Umberson D, Montez JK. Social relationships and health: a flashpoint for health policy. *J Health Soc Behav*. 2010 Oct;51(1_suppl):S54-S66. doi:10.1177/0022146510383501. PMID: 20943583; PMCID: PMC3150158.
3. Holt-Lunstad J. Social connection as a public health issue: The evidence and a systemic framework for prioritizing the “social” in

- social determinants of health. *Annu Rev Public Health*. 2022 Apr; 43(1):193-213. doi:10.1146/annurev-publhealth-052020-110732. PMID: 35021021.
4. Park JH, Kang SW. Social interaction and life satisfaction among older adults by age group. *Healthcare*. 2023 Nov;11(22):2951. doi:10.3390/healthcare11222951. PMID: 37998443; PMCID: PMC10671417.
 5. Richard L, Gauvin L, Gosselin C, Laforest S. Staying connected: neighbourhood correlates of social participation among older adults living in an urban environment in Montreal, Quebec. *Health Promot Int*. 2008 Dec;24(1):46-57. doi:10.1093/heapro/dan039. PMID: 19098293; PMCID: PMC5167566.
 6. Desrosiers J, Noreau L, Rochette A. Social participation of older adults in Quebec. *Aging Clin Exp Res*. 2004 Oct;16(5):406-12. doi: 10.1007/bf03324572. PMID: 15636468.
 7. Aroogh MD, Shabboulaghi FM. Social participation of older adults: A concept analysis. *PubMed*. 2020 Jan;8(1):55-72. doi:10.30476/ijcbnm.2019.82222.1055. PMID: 32039280; PMCID: PMC6969951.
 8. Duppen D, Lambotte D, Dury S, Smetcoren A, Pan H, De Donder L, et al. Social participation in the daily lives of frail older adults: Types of participation and influencing factors. *J Gerontol B*. 2019 Apr;75(9):2062-71. doi:10.1093/geronb/gbz045. PMID: 31001620.
 9. Levasseur M, Dubois MF, G  n  reux M, Naud D, Trottier L, Menec V, et al. Key age-friendly components of municipalities that foster social participation of aging Canadians: Results from the Canadian longitudinal study on aging. *J Urban Health*. 2023 Aug;100(5): 1032-42. doi:10.1007/s11524-023-00762-7. PMID: 37594674; PMCID: PMC10618123.
 10. Bukov A, Maas I, Lampert T. Social participation in very old age: cross-sectional and longitudinal findings from BASE. *J Gerontol B*. 2002 Nov;57(6):P510-P517. doi:10.1093/geronb/57.6.p510. PMID: 12426433.
 11. Yazawa A, Inoue Y, Fujiwara T, Stickley A, Shirai K, Amemiya A, et al. Association between social participation and hypertension among older people in Japan: the JAGES Study. *Hypertens Res*. 2016 Nov;39(11):818-24. doi:10.1038/hr.2016.78. PMID: 27383510.
 12. Takeuchi K, Aida J, Kondo K, Osaka K. Social participation and dental health status among older Japanese adults: a population-based cross-sectional study. *PLoS One*. 2013 Apr;8(4):e61741. doi: 10.1371/journal.pone.0061741. PMID: 23613921; PMCID: PMC3629217.
 13. Li C, Jiang S, Li N, Zhang Q. Influence of social participation on life satisfaction and depression among Chinese elderly: Social support as a mediator. *J Community Psychol*. 2017 Dec;46(3):345-55. doi: 10.1002/jcop.21944.
 14. Zhou D, Xu Y, Ai P. The effects of online social interactions on life satisfaction of older Chinese adults: new insights based on a longitudinal approach. *Healthcare*. 2022 Oct;10(10):1964. doi:10.3390/healthcare10101964. PMID: 36292411; PMCID: PMC9602052.
 15. Veenhoven R. Happiness: also known as "life satisfaction" and "subjective well-being." In: Springer eBooks. 2011 Jan;63-77. doi: 10.1007/978-94-007-2421-1_3.
 16. Blace NP. Functional ability, participation in activities and life satisfaction of the older people. *Asian Social Science*. 2012 Mar;8(3). doi:10.5539/ass.v8n3p75
 17. Loue SJ, Sajatovic M. Encyclopedia of aging and public health. 2008 Jan. doi:10.1007/978-0-387-33754-8.
 18. Celis N, It's a mall world in the Philippines. *NZ Herald* [Internet]. 2020 [cited 2024 Oct]. Available from: http://m.nzherald.co.nz/travel/news/article.cfm?c_id=7&objectid=11491310
 19. Rico JA, de Leon KR. Mall culture and consumerism in the Philippines [Internet]. 2017 [cited 2024 Oct]. Available from: <https://longreads.tni.org/stateofpower/mall-culture>
 20. Pihlblad CT, Adams DL. Widowhood, social participation and life satisfaction. *Aging Hum Dev*. 1972 Nov;3(4):323-30. doi:10.2190/dnq7-tm1k-3rxb-tk23.
 21. Dadang RJ, Mendoza EN. Dependency, disengagement, and life satisfaction: The challenges confronting the elderly of Maramag, Bukidnon, Philippines. *CMU Journal of Science*. 2016 Aug; 20(2), 59-75. <https://js.cmu.edu.ph/CMUJS/article/view/59-75>.
 22. Bistis-Nadala CR. Nurturing resilience: the tapestry of Filipino values in communal strength. *Ment Health Human Resilience Int J*. 2024 Feb;8(1):1-4. doi:10.23880/mhrij-16000238.
 23. Jang Y, Mortimer JA, Haley WE, Graves ARB. The role of social engagement in life satisfaction: Its significance among older individuals with disease and disability. *J Appl Gerontol*. 2004 Sep;23(3):266-78. doi:10.1177/0733464804267579.
 24. Diggs J. Activity theory of aging. In: Springer eBooks. 2007 Jan; 79-81. doi:10.1007/978-0-387-33754-8_9.
 25. Utz RL, Carr D, Nesse R, Wortman CB. The effect of widowhood on older adults' social participation. *Gerontologist*. 2002 Aug;42(4): 522-33. doi:10.1093/geront/42.4.522. PMID: 12145380.
 26. Faber J, Fonseca LM. How sample size influences research outcomes. *Dental Press J Orthod*. 2014 Aug;19(4):27-9. doi:10.1590/2176-9451.19.4.027-029.ebo. PMID: 25279518; PMCID: PMC4296634.