ORIGINAL ARTICLE

YOUNG AND OLD ADULTS' HEALTH-RELATED PROCRASTINATION, QUALITY OF SLEEP AND MENTAL WELLBEING

Ghaliyah Firdaus, Saadia Aziz, Saba Akhtar, Saman Sunny
Department of Applied Psychology, National University of Modern Languages, Islamabad, Pakistan

Background: Procrastination, the intentional postponement of work that needs to be performed in stipulated time frame affects individual's health related behaviours. Delay in consulting medical professional and seeking treatment in case of some ailment may influence the sleep quality and mental wellbeing of a person. Due to dilatory tendencies that lead to delay behaviours, number of commitments, busy routine, and being occupied with job related matters, people tend to defer their visits to doctor and hang up their medical checkups. **Method:** Current study was a cross-sectional study that compared health related procrastinatory behaviours, sleep quality, and mental wellbeing of young and old people. Purposive sampling approach was used for data collection. Initially measures of Health Related Procrastination, and Pittsburgh Sleep Quality Index were translated into Urdu and their psychometric properties were determined. Data was collected on study variables from young and old adults. **Results:** Findings showed sound psychometric properties of Urdu versions of HRPM and PSQI. Results revealed that those who show higher level of health related procrastination have poor sleep quality and low mental wellbeing. Significant differences were also observed in sleep quality of young and old adults. **Conclusion:** Health related procrastination negatively affects sleep quality as well being. Results have implications for adults, medical practitioners, and psychologists to help people in avoiding health related procrastination behaviours which may improve their sleep quality and mental wellbeing.

Keywords: Health, Procrastination, Quality of sleep, Mental wellbeing, Young, Old, Adults

Pak J Physiol 2020;16(3):25–8

INTRODUCTION

Procrastination is generally defined by researchers as the unnecessary and voluntary delay in the start and/or completion of necessary, and intended actions despite knowing that there will be negative consequences for doing so.[1] It is purposive and continuous postponement in starting or finishing an undertaking to the point of encountering emotional inconvenience.[2] The linkage of procrastination with poor health-related outcomes has been theoretically and empirically explained by the procrastination-health model.[3] Postponing behaviours can also lead to delay in treatment which causes distress and it refers to physical illness. Consistent with the procrastination-health model, research demonstrates that trait procrastination is associated with the practice of fewer wellness-promoting behaviours such as exercising regularly, healthy eating, reducing caffeine intake, getting sufficient sleep, and managing stress.[4]

The tendency to make unnecessary delay in performing important tasks despite of knowing the negative consequences, is significantly related to hypertension or cardiovascular disease (HT/CVD) even after controlling for the effects of age, race, educational level, and other personality factors.[5] People who tend to procrastinate suffer from poor health due to putting off treatments, delaying regular check-ups and other visits to the specialists. Another issue is that chronic procrastinators additionally delay health related behaviours such as eating healthy foods, exercise programs, and getting sufficient sleep which results in severe health problems such as diabetes and other heart diseases.[6] In spite of significance of sleep, up to 70 million individuals in the US and 45 million individuals in Europe have a constant sleep disorder that impacts day by day functioning and health related outcomes such as high level of stress, anxiety, decreased life satisfaction, hypertension and cardiovascular disease.[7–9] Previous findings indicate a substantial difference between females and males and between adolescents and children in procrastination tendencies.[10] Connection between age related differences, quality of sleep and poor physical and mental health results have been observed.[11] Problematic use of internet among youth gives rise to procrastination.[12] With reference to Pakistan no such study has been undertaken that has explored health related procrastination and its associated outcomes. Keeping in view the significance of issue and findings of previous studies carried out in West, the present study was carried out to explore the nature of relationship among study variables across two different age groups, so that at community level awareness may be raised regarding health related practices and discourage procrastination tendencies to save them from negative health outcomes.

METHODOLOGY

This was a cross-sectional study and used nonprobability purposive sampling approach. The study was carried out at National University of Modern Languages, Islamabad from February to May 2019 after getting approval from Institutional Review Board of the University. Sample size for the study was calculated through G-power analysis. Data was collected from 200 participants selected through purposive sampling, from staff members, parents and students of NUML, Preston University, Islamic University, and different government schools and colleges of Rawalpindi and Islamabad. Informed consent was obtained from all participants. Inclusion criteria for sample of adults was based on WHO definition of adulthood, i.e., a person 19–35 years of age as young adult and above 55 years as old adult.

Urdu translated versions of Health Related Procrastination Measure[13], Pittsburgh Sleep Quality Index[14], and Warwick-Edinburgh Mental Wellbeing Scale[15] were used for data collection. Forward translation was done by three experts who translated each item into Urdu. A committee comprising of two subject experts critically analysed and selected the most appropriate translation to produce the final Urdu version of questionnaires.

All measures were in Likert type format. HRPM has two subscales, Exercise Procrastination and Healthy Diet Procrastination, with reported alpha of 0.94 and 0.97. PSQI measure consists of 19 items with alpha of 0.83 and WEMWBS is a 14 item scale of mental wellbeing having test-retest reliability of 0.83.

Initially, scales of HRPM and PSQI were translated in Urdu and validated by employing independent sample and then data was collected. A trial phase was carried out with three young and three old adults to check the level of comprehension and understanding of scale. Feedback of respondents indicated that some of the items were not easily comprehended that further provided the justification for translation of scale.

RESULTS

Out of 200 participants 108 (54%) were young adults and 92 (46%) were old adults, 105 (52%) were males and 95 (47%) were females. Results for determination of psychometric properties of measures revealed that alpha for HRPM (Urdu version) was 0.82 and 0.93 for WEMWBS whereas test-retest reliability for PSQI (Urdu version) total was 0.66.

Findings indicate significant negative relationship between health related procrastination and mental wellbeing, and significant positive correlation with poor quality of sleep (high scores on PQSI indicates poorer quality of sleep) and health procrastination. Moreover, significant negative correlation was found between mental wellbeing and poor sleep quality.

Table-2 shows significant age differences in sleep quality as it was worse among older adults than younger ones. No significant difference was found on study variables regarding gender.

Table-3 shows frequencies and percentages of people with regards to categories of sleep quality, and scores above and below mean on exercise and diet procrastination.

Table-1: Psychometric properties and correlation coefficient between HRPM, WEMWBS, and PSQI (n=200)

Variables	HRPM	EPS	DPS	WEMWBS	PSQI
HRPM	-	0.87*	0.80*	-0.65*	0.60*
Exercise Procrastination Sale	-	-	0.42*	-0.51*	0.51*
Diet Procrastination Scale		-	-	-0.59*	0.50*
WEMWBS	-	-	-	-	-0.34*
PSQI	-	-	-	-	-
Alpha	0.90	0.87	0.88	0.81	0.69
Mean	35.27	17.44	17.38	50.46	8.38
SD	10.91	6.23	5.93	9.04	3.79
Skewness	-0.47	-0.16	-0.41	1.95	0.37
Kurtosis	0.08	-0.86	-0.16	4.7	0.11

*p<0.01

Table-2: Age-wise differences in health-related procrastination, mental wellbeing and quality of sleep

Scales	Young adults (n=108) Mean±SD	Old adults (n=92) Mean±SD	t	p	95% CI LL	95% CI UL	Cohen's D
HRPM	35.21±8.2	33.42±9.3	0.70	0. 48	-3.26	6.78	-
WEMWBS	33.90±7.3	33.08±10.7	0.34	0.738	-4.37	6.13	-
PSQI	6.60±2.6	10.23±2.6	-4.3	0.000	-4.78	-1.77	0.68

HPM=Health-Related Procrastination Measure, EPS=Exercise Procrastination Scale, DPS=Diet Procrastination Scale, WEMWBS=Warwick-Edinburgh Mental Wellbeing Scale, PSQI=Pittsburgh Sleep Quality Index

Table-3: Frequency distribution of participants according to quality of sleep, diet procrastination and exercise procrastination

Sleep Categories	Number	Percentage
No difficulty (0–5)	49	24
Moderate difficulty (6–10)	85	42
Severe difficulty (11–21)	66	33
Diet Procrastination (above mean)	93	46
Diet Procrastination (below mean)	107	53
Exercise procrastination (above mean)	105	52
Exercise procrastination (below mean)	95	48

DISCUSSION

Current study was carried out with an objective to explore the tendencies pertaining to health procrastination, and its association with sleep quality and mental wellbeing among adults. As generally it is observed that now-a-days due to number of commitments and deadlines to pursue, everyone is running short of time and in this quandary health is an important issue which is badly ignored. The tendency to procrastinate on health related matters such as skipping appointments or delay in medical checkups can exacerbate the health problems.

Results showed significant negative relationship between health-related procrastination and mental well-being and between mental wellbeing and poor sleep quality whereas significant positive correlation was found between health procrastination and poor sleep quality. Earlier studies revealed similar results that indicated a link between delay behaviours and poor health outcomes.[16,17] Previous literature also lends support to these finding as insufficient sleep is related to severe outcomes including health problems such as obesity, diabetes, and hypertension.[7,18] The present research also revealed the age-related differences regarding quality of sleep, as sleep quality was worse among older adults. Present findings are in agreement to previous studies indicating those who show delay in following exercise and diet related health issues show lesser mental wellbeing[19], and also have poor sleep quality.[20] A need is there to educate people and raise awareness regarding giving due significance to health concerns, and discourage self-medication practices. Healthy practices such as balanced diet, regular exercise and routine checkups should be promoted. This will not only keep them physically healthy but will also elevate their mental wellbeing.

Current study has its implications for general public, medical professionals, dieticians, and mental health professionals. The study has certain gaps and weaknesses that need to be addressed such as research was cross-sectional study it may leads to misinterpretation of results. Findings cannot be generalized as sample was collected only from Rawalpindi and Islamabad which is truly not representative of people living in other cities and rural areas. Longitudinal research design is also suggested for future studies that may explore people tendencies for a longer period.

CONCLUSIONS

Old adults had poor quality of sleep and among whole sample maximum percentage of adults reported experiencing moderate level of difficulty in sleep. Our findings can augment counselling the patients in promoting healthy behaviours to avoid health related procrastination practices and improve their sleep quality and wellbeing.

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Address for Correspondence:

Dr. Saadia Aziz, Associate Professor, Department of Applied Psychology, National University of Modern Languages (NUML), Islamabad, Pakistan. **Cell:** +92-333-5396999
Email: saziz@numl.edu.pk, azizsadi@gmail.com

Received: 23 Oct 2019 **Reviewed: 27 Sep 2020** **Accepted: 29 Sep 2020**

Contribution of Authors:

GF: Concept, Data collection and analysis, Manuscript writing, Revision
SA: Concept, Study design, Manuscript review
SA: Data collection, Literature search
SS: Data collection, Literature search

Funding disclosure: None to declare
Conflict of interest: None