

A Study of Successful Ageing in Relation to Cognitive Functioning Between Male and Female

Asheesh Mishra¹; Dr. Gagan Prit Kaur²

¹Research Scholar, Department of Psychology, Veer Bahadur Singh Purvanchal University, Jaunpur, U.P., India

²Assistant Professor, Department of Psychology, Raja Shri Krishna Datta, P. G. College Jaunpur, U.P., India

Corresponding Author Email: eccasheesh198@gmail.com

Abstract—The human body undergoes various physiological and psychological changes with age, some of which may be beneficial, while others can be challenging. Successful ageing is characterized by physical, mental, and social well-being, which involves accepting these changes and adapting effectively. Cognitive functioning plays a critical role in this process by shaping how individuals understand and respond to their environment. The present study aimed to examine the relationship between cognitive functioning, gender, and successful ageing. A total of 120 participants (60 males and 60 females), aged 45 and above, were included in the study. Two standardized tools were employed: the Cognitive Assessment Questionnaire and the Successful Ageing Scale. Descriptive statistics and correlation were conducted. The findings indicated significant differences between gender groups, while cognitive functioning was positively associated with successful ageing.

Keywords: Successful Ageing, Cognitive Functioning

I. INTRODUCTION

Successful Ageing

As one gets older, lots of changes occur in life. Successful ageing does not just mean physical health but also holistic mental, social and cognitive abilities and functions. Indian culture has been a symbol of richness and prosperity (John Rowe & Robert Lous Kahn, 1998; Acta Biomed, 2019). It adopts a holistic approach to Successful Ageing whereby the elderly are given a special place, respected, revered and respected, as a guide. Indian culture has always been associated with prosperity and success. It takes a comprehensive approach to successful ageing, seeing the old as a source of guidance and giving them a specific location that is adored and appreciated. Indian culture has always been associated with prosperity and success. It takes a comprehensive approach to successful ageing, seeing the old as a source of guidance and giving them a specific location that is adored and appreciated. In the Indian way of life, the older would recognize his role in the family and impart his wisdom to the younger generation, whose counsel was valued most highly. So that he could understand his meaning and depth in the family. Taking up sophisticated procedures like as Yoga, Meditation, and Pranayama can enhance an individual's health and cognitive abilities, which is crucial for ageing successfully (Gothe, N P., Kramer, A. F. & McAuley, E., 2014). In Indian philosophy and spirituality, the final stage of life is considered to be "*Moksha*" and not economic prosperity. So that a person can adopt an easy approach to life and pave a positive path. In Indian philosophy, ageing is imbued with holistic health, spiritual satisfaction, growth of knowledge and experience, contribution to society and self-satisfaction (Tripathi, R.C. & Kumar, K., 2009).

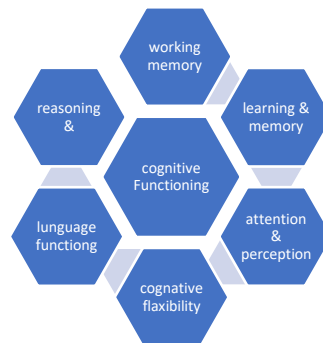
Hindu philosophy, the system of ashrams, importance of religious spiritual life and self-realization have been emphasized. In Buddhist philosophy, the four basic truths of life, following the middle path, importance of meditation, all these lead towards successful ageing. The *Triratna* (Samyak Darshan, Samyak Gyaan, Samyak Charitra) of Jainism, the importance of religious and spiritual life plays an important role in successful ageing. Indian philosophy and meditation and yoga have been given importance in old age since ancient times. Ayurvedic texts like *Charakya Samhita*, *Sushruta Samhita* have emphasized on increasing cognitive ability like mental clarity, memory, meditation etc. (Krishnmurty, K.H., 20003; Sharma, R. N., 2004).

In a nutshell the ultimate goal of old age, as per Indian scriptures, is to achieve emancipation and maintain cognitive faculties during this latter phase of life.

Cognitive Functioning

Cognitive functioning is a type of ability that includes all the processes through which we process and understand information from our surroundings and use it as needed in our lives. Every event in a person's life, no matter how great or minor, is connected

to those mental activity. They have to do with skills like reasoning, comprehension, learning, recalling, making decisions, and reflecting, among others (Drew M Altschul, 2020; S Leanos, 2018).



Cognitive Functioning Indian philosophy has been a mixture of both spiritual and philosophical styles. Indian philosophy has extensively shed light on the processes of the mind and brain. Indian philosophy talks about increasing and improving cognitive functioning through yoga, meditation, and exercise. The esoteric Indian philosophy known as Sankhya Vedanga Buddhism is essential. It views cognitive power to be tied to soul knowledge, and the soul is related to the mind as a means of survival. In Indian society, our cognitive capacity is influenced in one way or another by our family, friends, education, and groups. A child's mental surface is deeply impacted by the ideals instilled in them by their parents as well as by their actions. The knowledge and experience given by the scriptures and texts contribute to strengthening their lifestyle, memory, meditation, reasoning power etc.

If we look at the present scenario, then various reasons like increasing western influence in India, people's lifestyle etc. have had a negative impact on cognitive functioning in some way or the other. In such a situation, we should adopt and implement our ancient rules like meditation and yoga (International Journal of Yoga, 2014).

Importance of Cognitive Functioning in Successful Ageing

Cognitive performance and effective ageing are closely related. Achieving successful ageing involves maintaining mental and cognitive sharpness in addition to physical health improvements (Deep & Jeste 2006).

For autonomous decision-making: If cognitive functioning remains good then the elderly person will be able to take decisions independently and solve problems. Maintaining focus and memory will maintain the quality of his life (I G Kelso, 2022).

Salutary social connections: Having healthy cognitive functioning will keep a person cognitively healthy and hence socially active (S Samtani, 2022). Communication and speech skills will improve and will go a long way in helping people maintain good social relationships (Baltes, Staudinger, & Lindenberger, 1999).

Equilibrium of emotion: Emotional and stability causes many problems in a person's life which are often seen in old age (Schaie, K Waener, 1996). An efficient cognitive functioning reduces the incidence of emotional instability (Luiz Pessoa, 2009). Problems like stress and anxiety can be dealt with easily.

Receptiveness to experience and willingness to embrace new tasks: Often, in old age, people want to avoid doing new work, whereas older people with higher cognitive functioning have the ability to learn new experiences and tasks (N g & Feldman, 2008).

II. REVIEW OF LITERATURE

study conducted by Albert et al. (1995) to look at the connection between gender and good ageing and cognitive performance. 300 adults were included in this longitudinal research sample (male and female). Studie suggests that women have better cognitive functioning than men.

Similar research on successful ageing, gender, and cognitive performance was conducted by Lachamn et al. (2001). This cross-sectional study included 2800 individuals. The study discovered that variations in gender were noticeable in a number of cognitive function components. Male individuals outperformed female participants in executive skills, whereas female participants did better on memory functions.

Similar research on successful ageing, gender, and cognitive performance was conducted by Lachamn et al. (2001). This cross-sectional study included 2800 individuals. The study discovered that variations in gender were noticeable in a number of

cognitive function components. Male individuals outperformed female participants in executive skills, whereas female participants did better on memory functions.

The investigation on the gender difference in cognitive performance and physical decline was conducted by Hupin et al. (2015). A cross-sectional research of 1500 elderly individuals indicated that physical exercise helps men manage cognitive decline more than women.

to look at the impact on cognitive performance and optimal ageing, taking into account key characteristics like as living area, SCS, and gender. Hutch carried out a study in 2020. The study's finding suggests that higher socioeconomic status and urban residence indicate greater Successful Ageing, while social support plays an important role among women.

III. OBJECTIVES

- Examine the relationship between Successful ageing and Cognitive functioning.
- Examine the effect of Gender on cognitive functioning and Successful Ageing.

IV. HYPOTHESIS

- There will be found positive relation between Cognitive Functioning and Successful ageing.
- There will be found Positive relation of Cognitive functioning and Successful Ageing between male and female.

V. METHOD

Design: This study was used correlational methods. The aim is to test the relationship between successful ageing and cognitive functioning in older adults. A total of 120 participants were included for the study, whose age range was 50 years and above. Also, the relationship with gender was also examined. Data was analyzed using Pearson correlation.

*The present study employed a correlational research design to investigate the relationship between successful ageing and cognitive functioning among older adults. It also examined the association of gender, with successful ageing. The design was non-experimental and aimed at identifying naturally occurring relationships without any manipulation of variables. Data was analyzed using Pearson correlation to explore the strength and predictive value of the variable.

Participants: In the study included a sample of 120 individuals, age range 50 to above (average 64 years). The sample included both male and female participants, selected by sampling random technique to best represent a wide range of gender demographics.

Measuring Tools: A set of three questionnaires used, below is a quick summary of these measures:

Personal Data Sheet (PDS): Personal data background characteristics of the participants were determined using the PDS, which was utilized. The schedule includes details about the subjects' name, age, gender, profession, place of residence, socioeconomic status, caste, religion, monthly income, and habitat, among other things.

Successful Ageing scale: Successful Ageing Scale (SAS) was used to collect data which is developed by Gary T. Reker. In this scale responses will according to 7 rating scale from Strongly Agree to Strongly Disagree

Cognitive Functioning scale: The name of the cognitive assessment questionnaire was the cognitive failures questionnaire. Broadbent et al. were the ones who invented CFQ (1982).

Procedure: In this investigation, data was collected using a random sample approach. Individuals above the age of 50 were approached directly. The village and city were identified first throughout the sample selection procedure. They were approached one by one, and after giving their agreement, they were informed about the goal of the study. A short interview was conducted to learn about the participants' general physical and mental health. After determining that they do not have any chronic physical or mental diseases and have not been involved in any recent accidents, they were given a questionnaire. Data were collected using both Google and paper forms. Total of 260 participants were contacted, and only 190 agreed to participate in the current study. Only 130 of the 190 filled out the questionnaire completely. A total of 120 data points were appropriate for the investigation. After gathering all of the data, all participants were thanked for their participation.

Data Analys: Scores are assigned to the replies provided by the respondents on the different metrics in accordance with the set rules. After the grading procedure, more statistical analysis was planned using the SPSS-23 version. The result was examined and debated in light of relevant empirical and theoretical information.

VI. RESULT

The statistical analysis of the sponsors' outcomes on a range of metrics is included in this section. The correlation results are shown in the first part. The table below presents the results in a methodical manner.

SECTION.1:

Table no.1- Mean and S.Ds. of Successful Ageing and Cognitive Functioning by Gender

		N	Successful Ageing			Cognitive Dysfunction		
			Mean	SD	SEM	Mean	SD	SEM
Gender	Male	60	64.49	15.197	1.978	42.63	14.806	1.928
	Female	60	68.41	15.178	1.963	36.21	15.395	1.973
	Total	120	66.48	15.257	1.392	39.37	15.383	1.404

Table 1 shows that an equal number of male and female individuals were selected as samples to eliminate gender bias. An independent samples descriptive comparison was conducted to explore gender relationship between successful ageing and cognitive dysfunction. As shown in Table 1, female participants (M = 68.41, SD = 15.18) reported higher levels of successful ageing compared to male participants (M = 64.49, SD = 15.19). Conversely, males (M = 42.63, SD = 14.81) demonstrated higher levels of cognitive dysfunction than females (M = 36.21, SD = 15.40). Overall, the mean score for successful ageing across all participants was 66.48 (SD = 15.25), while the mean cognitive dysfunction score was 39.37 (SD = 15.38). These preliminary findings suggest potential gender-related differences in both successful ageing and cognitive decline.

SECTION 2: Correlations Analysis

Table No.2

Relationship between Successful Ageing, Cognitive functioning, and Gender

	Gender	Cognitive Dysfunctioning	Successful Ageing
Gender	1	-.209*	.129
Cognitive Dysfunctioning	-.209*	1	-.748**

Successful Ageing	.129	-.748**	1
-------------------	------	---------	---

- **Cognitive functioning, Gender, and Successful Ageing:** To ascertain the relationship between Successful Ageing and CF concerning gender, it is evident from the results (Table No. 1) that Successful Ageing exhibits a substantial positive association with Cognitive Dysfunction ($r = -.748$, $P < .01$).
- **Gender, Successful Ageing and Cognitive Dysfunction:** To evaluate the relationship between cognitive dysfunction, successful ageing and gender. Cognitive dysfunction was shown to have an inverse but significant connection with gender ($r = -.209$, $P < .05$) and successful ageing ($r = -.748$, $P < .01$).

However, clearly, the Pearson correlation analysis revealed a significant negative correlation between cognitive distortion and successful aging ($r = -.748$, $p < .01$), indicating that as cognitive distortion increases, successful aging decreases. Additionally, a weak but significant negative correlation was also observed between gender and cognitive distortion ($r = -.209$, $p < .05$). However, no significant correlation was found between gender and successful aging ($r = .129$, $p > .05$).

VII. DISCUSSION

The results of the study lead to the conclusion that there is a strong relationship between cognitive functioning and successful ageing shared between genders. Increasing cognitive dysfunction was associated with a lower rate of successful ageing. There was a gender correlation with cognitive functioning. Female were found to develop cognitive dysfunction at a slower rate than male.

High cognitive dysfunction reduces a person's decision-making ability, decreases cooperation in social relationships (Rowe and John, 1997), and reduces memory, reasoning, and other important abilities (Salthouse, 1996; Weuve et al 2007). It is clear that successful agent can be enhanced by reducing cognitive dysfunction (Annear et al., 2017) and by intervening on cognitive functioning (Samallel et al., 2011). As people get older, their degrees of deterioration also rise. Even after meditation and exercise, the intellect loses its enthusiasm (Rown and Kalur 1997), memory issues occur (Prince et. al., 2013), and other physical issues begin to worsen (Murray et al, 2012). As a result, the number of successful agents decreases.

It has been discovered that males are not as good at cognitive functioning as women (Devil et. ai., 2020) are in other words, the main reason that cognitive impairment is more prevalent in men is because women are better at language and memory (Weise, 2003; Herlitz & Rehnman, 2008). The fact that women are deemed superior to males is also influenced by other hormonal considerations (Sundermann et al., 2016).

VIII. CONCLUSION

The study's conclusions unequivocally show that Gender, and cognitive function are all highly correlated with healthy ageing. The impact of gender has been amply demonstrated; research has shown that women perform better cognitively than males do. However, the impact of gender on successful ageing has not been shown. It was discovered that as one became older, successful ageing decreased. There was no further discernible significant impact on cognitive performance. In conclusion, it is evident that

IX. LIMITATION OF THE STUDY

There are some major limitations of this study. The most prominent is the sample size, which is limited to just 120 participants, which may limit the diversity of the population and the ability to generalize. The sample may be too small to widely represent Gender. The second major limitation is the lack of geographical diversity as this study represents both urban and rural residents, as it is not easy to study both of them equally. And the study is also limited to a particular area which is its major limitation. And the method of data collection is voice report technology which brings with it various drawbacks. As the perception and memory of the participants may be affected in old age.

X. FURTHER RESEARCH

The sample presented in this study is giving preliminary information and nature but for more reliable investigation, a larger sample can be taken. Apart from cognitive functioning, many other factors such as mental health, physical health, higher education level can also be included for successful ageing, which are influential factors for successful ageing. This study is a cross-sectional study, longitudinal study can be done to confirm the results. The above is the main point on which the need to do the study is highlighted.

REFERENCES

1. Bhagavad Gita. (2000). Bhagavad Gita: With commentary by Swami Sivananda. Divine Life Society.
2. Bojsen-Møller, E., Boraxbekk, C.-J., Ekblom, Ö., Blom, V., and Ekblom, M. M. (2019). Relationships between physical activity, sedentary behaviour and cognitive functions in office workers. *Int. J. Environ. Res. Public Health* 16:4721. doi: 10.3390/ijerph16234721
3. Charaka. (2003). Charaka Samhita (K. H. Krishnamurthy, Trans.). Chaukhambha Orientalia. (Original work ~2nd century BCE).
4. Chen, R., Williams, D. R., Nishimi, K., Slopen, N., Kubzansky, L. D., and Weuve, J. (2022). A life course approach to understanding stress exposures and cognitive function among middle-aged and older adults. *Soc. Sci. Med.* 314, 314:115448. doi: 10.1016/j.socscimed.2022.11544.
5. Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publications.
6. Depp CA, Jeste DV. Definitions and predictors of successful ageing: a comprehensive review of larger quantitative studies. *Am J Geriatr Psychiatry*. 2006;14:6–20. doi: 10.1097/01.JGP.0000192501.03069.bc.
7. Eyre, H. A., Acevedo, B., Yang, H., Siddarth, P., Van Dyk, K., Ercoli, L., & Lavretsky, H. (2016). Changes in neural connectivity and memory following a yoga intervention for older adults: A pilot study. *The Journals of Gerontology: Series A*, 71(3), 298–301. <https://doi.org/10.1093/gerona/glv094>
8. Fisher, G. G., Chaffee, D. S., Tetrick, L. E., Davalos, D. B., & Potter, G. G. (2017). Cognitive functioning, ageing, and work: A review and recommendations for research and practice. *Journal of Occupational Health Psychology*, 22(3), 314–336. <https://doi.org/10.1037/ocp0000086>.
9. Gard, T., Hölzel, B. K., & Lazar, S. W. (2014). The potential effects of meditation on age-related cognitive decline: A systematic review. *Annals of the New York Academy of Sciences*, 1307(1), 89–103. <https://doi.org/10.1111/nyas.12348>.
10. Gothe, N. P., Kramer, A. F., & McAuley, E. (2014). The effects of an 8-week Hatha yoga intervention on executive function in older adults. *The Journals of Gerontology: Series A*, 69(9), 1109–1116. <https://doi.org/10.1093/gerona/glu095>.
11. Hariprasad, V. R., Varambally, S., Shivakumar, V., Kalmady, S. V., Venkatasubramanian, G., & Gangadhar, B. N. (2013). Yoga increases the volume of the hippocampus in elderly subjects. *Indian Journal of Psychiatry*, 55(Suppl 3), S394–S396. <https://doi.org/10.4103/0019-5545.116320>
12. Kamat, R., Martin, A. S., & Jeste, D. V. (2017). Successful ageing. In H. Chiu & K. Shulman (Eds.), *Mental health and illness of the elderly* (pp. 7–28). Springer Science + Business Media. https://doi.org/10.1007/978-981-10-2414-6_3
13. Knight T, Ricciardelli LA. Successful ageing: perceptions of adults aged between 70 and 101 years. *Int J Ageing Hum Dev*. 2003;56:223–245. doi: 10.2190/CG1A-4Y73-WEW8-44QY.
14. Phelan EA, LaCroix AZ. Older adults' views of successful ageing - how do they compare with researchers' definitions? *J Am Geriatr Soc*. 2004;52:211–216. doi: 10.1111/j.1532-5415.2004.52056.x.
15. Reichstadt J, Depp CA, Palinkas LA. Building blocks of successful ageing: a focus group study of older adults' perceived contributors to successful ageing. *Am J Geriatr Psychiatry*. 2007;15:194–201. doi: 10.1097/JGP.0b013e318030255f.
16. Sushruta. (2007). Sushruta Samhita (P. V. Sharma, Trans.). Chaukhambha Visvabharati.
17. Sharma, R. N. (2004). Indian philosophy and the art of aging gracefully. *Indian Journal of Gerontology*, 18(2), 241–2.
18. Tang, Y. Y., Hölzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. *Nature Reviews Neuroscience*, 16(4), 213–225. <https://doi.org/10.1038/nrn3916>
19. Von Faber M, Bootsma-van der Wiel A, van Exel E. Successful ageing and the oldest old: who can be characterized as successfully aged? *Arch Intern Med*. 2001;161:2694–2700. doi: 10.1001/archinte.161.22.2694.