Journal of Advanced Zoology

ISSN: 0253-7214

*Volume **44** Issue 5 **Year 2023** Page **1588-1591***

Impact Of Gender Difference In Behavioural Component, Musculoskeletal Pain, Psychosocial Factors And Sleep Apnea In Elderly Individual.

Adiba[1*], Deepak Raghav[2], Tanvi Agarwal[3]

[1]mpt,
[1]professor/Principal
[1]professor, Department Of Physiotherapy, Santosh Deemed To Be University

***Corresponding Author:**-Prof.(Dr) Deepak Raghav*
**Professor/Principal Department Of Physiotherapy, Santosh Deemed To Be University*
Deepak.Raghav@Santosh.Ac.In

ABSTRACT

Aim: Examines the multifaceted impact of gender differences on various health aspects in the elderly population. Specifically, it delves into the Behavioral components, musculoskeletal pain, psychosocial factors, and sleep apnea, shedding light on how these factors interplay with gender and influence overall health outcomes in older adults.

Methodology: Cross-sectional Study Collect data from a single point in time to examine associations between gender differences and health outcomes in elderly individuals.

Result: There was statistical significance difference between old age female and old male in geriatric pain measure scale with $p<0.05$.

Conclusion: Gender variations in behavior may influence how individuals experience and cope with musculoskeletal pain and psychosocial factors, highlighting the importance of personalized treatment approaches

Keywords: Gender, sleep apnea, musculoskeletal pain,health

Introduction:

Disordered breathing during sleep is a common abnormality resulting in excessive daytime somnolence and numerous physiologic illness for millions of Americans. Sleep apnea is defined as a repetitive, intermittent cessation of air flow at the nose and mouth while sleeping, and the clinical syndrome is marked by recurrent episodes of apnea (complete cessation of breathing) and hypopneas (partial decrease in breathing) during sleep. These episodes can be due to two causes which include occlusion of the upper respiratory tract (URT) airway (obstructive) or absence of breathing effort (central). Obstructive sleep apnea (OSA) is an independent risk factor for hypertension and other cardiovascular disease such as stroke and myocardial infarction. It has also been reported to play a role in the pathogenesis of insulin resistance and Type II diabetes. In addition to these effects, the excessive daytime sleepiness associated with OSA has been implicated in motor vehicle accidents and a general decrease in quality of life. OSA represents a major public health issue.[1,2]

Psychologic alsymp to msinclude feeling off earorterr or without anyparticular reason.[3] Musculoskeletaldis or dersare them ostfrequentchronicdiseases during aging, being characterized specially by painanddecreased joint functionan dmovement. When associated to pain, the yarerelated to worsequalityoflife.[4] Apotentially importants our ceofunrecognizedm or bidity in this group is obstructive sleepapnea (OSA). OSA isassociated with multiple health consequences, in cluding neurologicaldys function sleepiness sanded creasedcognitive

function, vasculardisease hypertension, cardiacand stroke, metabolicdys function (type 2diabetes), depression, andcancer.[5] Many of theses upposedconsequences of OSA over lap with changes eeninaging. This hasmotivated speculation on the bidirectional causal relationships that couldexist between these over lapping conditions. Further complicating thes cienceis that, symptomatic OSA is clinicallym or eprominent, al thoughnotless common, inmiddleage intheelderly.It mayalsocause progressivedamage over timethatmanifests only later, while OSA its elfmay change character and become less evident with aging.

Methodology

This is a cross sectional study random sampling has been taken for this study. Data were collected through face to faceinterview. Participants will be recruited from community centers, retirement homes, and healthcare facilities within a specified geographic area.The duration of this study one year. The inclusion critera of this study include 1.Elderly individuals aged 65 years and above.2 Both male and female participants3. Willingness to participate in the study and provide informed consent.4Diagnosed with musculoskeletal pain or sleep apnea, or reporting symptoms related to these conditions. exclusion criteria was 2.Refusal to participate in the study or inability to provide informed consent3.Severe cognitive impairment that would impair understanding and participation in the study.4. Presence of other chronic conditions or comorbidities that may significantly affect the study outcomes (e.g., severe cardiovascular disease, terminal illness).5. History of significant psychiatric disorders or substance abuse that may confound the results.

Procedure:

The participants were educated regarding nature of the study. The participation is voluntary. A consent form was filled before recruit in study. scales and questionnaires used in this study.

1) The Pittsburgh sleep quality index: this is a questionnaire that is used to evaluate sleeping problems.it includes the assessment of different aspects of sleep . it tells us the quantity and quality of sleep.this scale has 19 self rated questions.
2) Geriatric Depression Scale (GDS)TheGeriatricDepressionScale (GDS)isapatient-reportedoutcomemeasurecreatedbyYesavageetal.in1982 tocheckfordepressivesymptomsamongolderadults .Thisscreeningtoolhas30items,butseveralshorterversionswerealsodeveloped.

3WHOQualityofScaleBref(WHOQOL-BREF) isa 26-iteminstrumentconsistingoffourdomains:physicalhealth(7items),psychologicalhealth(6items),socialrelationships(3items),andenvironmentalhealth(8items);italsocontainsQOLandgeneralhealthitems.Thephysicalhealthdomainincludesitemson mobility,dailyactivities,functionalcapacity,energy,pain,andsleep.Thepsychologicaldomainmeasuresincludesel f-image,negativethoughts,positiveattitudes,self-esteem,mentality,learningability,memoryconcentration,religion,andthementalstatus.Thesocialrelationshipsdomaincontainsquestions onpersonalrelationships,socialsupport.

Result

There was statistical significance difference between old age female and old a gemale Pittsburgh sleep quality in dexscale with P< 0.05. There was greater sleep score in female than male. There was no statistical significance difference between old age female and old age male ingeriatricdepressionscale withP>0.05. There was no such difference in me and epressi on score between female and male. There was statistical significance difference between old age female and old age male in geriatricpa in measure scalewith P<0.05. Female hadgreater painscorethanmalemeanoldagefemalehadmorepainthanoldagemale. Therewas**no**statisticalsignificancedifferencebetweenoldagefemaleandoldagemaleintheEpworthsleepinessscalewithP>0.05.Therewasnosuchdifferenceinmeansleepinessscorebetweenfemaleandmale.
Therewasstatisticalsignificancedifferencebetweenoldagefemaleandoldagemaleinwhoqualityoflife(physicalhealth)scalewithP<0.05.Malehadgreaterqualityoflifescoreinphysicalhealththanfemale.
Therewasstatisticalsignificancedifferencebetweenoldagefemaleandoldagemale inWHOqualityoflife(psychological)scalewithP<0.05.Malehadgreaterqualityoflifescoreinpsychologicalthanfemale.

Tools	Female (mean ± SD)	Male (mean ± SD)	t value	P-value	Result
Pittsburgh Sleep Quality Index	7.30 ± 2.169	6.44 ± 1.473	2.319	0.022	Significant
Geriatric Depression Scale	6.00 ±1.370	5.72 ±1.310	1.044	0.299	Insignificant
Geriatric Pain Measure	50.054 ±14.624	43.076 ±12.381	2.575	0.012	Significant
The Epworth Sleepiness Scale	7.82 ±2.593	7.48 ±2.375	0.684	0.496	Insignificant
WHOQOL Domain 1 (Physical health)	49.942 ±11.591	55.574 ±11.291	2.461	0.016	Significant
WHOQOL Domain 2 (Psychological)	47.304 ±9.397	51.966 ±8.841	2.555	0.012	Significant
WHOQOL Domain 3 (Social relationship)	42.8 ±16.223	47.958 ±14.341	1.684	0.095	Insignificant
WHOQOL Domain 4 (Environment)	52.95 ±10.419	55.068 ±8.518	1.113	0.269	Insignificant

Discussion

Our study investigated the complex interplay between gender differences and various health domains among elderly individuals. The findings reveal important insights into the disparities in behavioural components, musculoskeletal pain, psychosocial factors, and sleep apnea, emphasizing the need for gender-sensitive healthcare approaches in this population.[6]

Gender emerged as a significant factor influencing behavioral components among elderly individuals. Women tended to engage in lower levels of physical activity compared to men, which may be attributed to societal norms, caregiving responsibilities, and age-related physical limitations. Addressing these gender-specific barriers through tailored exercise programs and support services is essential for promoting physical activity and overall health in elderly women.Dietary habits also exhibited gender differences, with women often adhering to healthier eating patterns compared to men.[7] However, disparities in nutrient intake and dietary quality warrant attention, particularly in the context of nutritional interventions aimed at preventing age-related chronic diseases.Substance use patterns varied by gender, with men exhibiting higher rates of alcohol and tobacco consumption compared to women.[8] Gender-sensitive substance abuse interventions should consider the unique risk factors and motivations driving substance use among elderly individuals, ensuring targeted support and resources are available to both gender

Gender disparities in musculoskeletal pain were evident, with women reporting higher prevalence and severity of pain compared to men. This finding aligns with existing literature highlighting gender differences in pain perception and coping strategies.[9, 10] The influence of hormonal factors, psychosocial factors, and underlying musculoskeletal conditions on pain experiences merits further investigation to inform personalized pain management strategies for elderly individuals.Psychosocial factors significantly impacted health outcomes in elderly individuals, with gender playing a pivotal role in shaping social support networks, loneliness, and mental health status.[11] Women often reported higher levels of social support but also experienced greater feelings of loneliness, highlighting the complex interplay between gender roles, social relationships, and emotional well-being.[12] Culturally sensitive interventions that address gender-specific psychosocial needs are essential for mitigating loneliness and promoting mental health among elderly individuals[13].

Gender differences in sleep apnea prevalence and presentation underscored the importance of tailored diagnostic and treatment approaches. Men exhibited higher rates of sleep-disordered breathing and were more likely to experience severe symptoms such as snoring and daytime sleepiness.[14] However, the underdiagnosis and undertreatment of sleep apnea in women emphasize the need for increased awareness and screening efforts, particularly among elderly females. Our findings have important implications for healthcare providers, policymakers, and researchers working with elderly populations. Gender-sensitive healthcare approaches that consider the unique needs and experiences of elderly individuals are essential for optimizing health outcomes and promoting equitable access to care. Future research should focus on longitudinal studies to elucidate the causal pathways linking gender to health outcomes and explore the effectiveness of gender-sensitive interventions in improving overall well-being in elderly individuals.

Conclusion

Gender variations in behavior may influence how individuals experience and cope with musculoskeletal pain and psychosocial factors, highlighting the importance of personalized treatment approaches. Additionally, addressing sleep apnea in the elderly requires considering gender-specific risk factors and symptoms to

ensure effective management and improved overall health outcomes. Further research into gender-specific interventions and strategies is warranted to optimize healthcare delivery for elderly individuals.The cross-sectional nature of our study limits our ability to establish causality or infer temporal relationships between gender differences and health outcomes. Longitudinal studies are needed to elucidate the dynamic nature of these associations over time.Our study sample may not fully represent the diversity of elderly individuals, particularly those from underrepresented populations or with severe health conditions.

References

1. Verse T, Pirsig W (2001) New developments in the therapy of obstructive sleep apnea. Eur Arch Otorhinolaryngol 258:31–37
2. Blumen M, Chabolle F, Rabischong E et al (1998) Dilator muscles of the pharynx and their implication in the sleep apnea syndrome of obstructive type. Review of the literature. Ann OtolaryngolChirCervicofac 115:73–84
3. Veldi M, Vasar V, Hion T et al (2002) Myotonometry demonstrates changes of lingual musculature in obstructive sleep apnea. Eur Arch Otorhinolaryngol 259:108–112
4. Schwartz AR, O'Donnell CP, Baron J (1998) The hypotonic upper airway in obstructive sleep apnea: role of structures and neuromuscular activity. Am J Respir Crit Care Med 157:1051–1057
5. Mann EA, Burnett T, Cornell S et al (2002) The effect of neuromuscular stimulation of the genioglossus on the hypopharyngeal airway. Laryngoscope 112:351–356
6. Edmonds LC, Daniels BK, Stanson AW et al (1992) The effects of transcutaneous electrical stimulation during wakefulness and sleep in patients with obstructive sleep apnea. Am Rev Resp Dis 146:1030–1036
7. Schwartz AR, Eisele DW, Hari A et al (1996) Electrical stimulation of the lingual musculature in obstructive sleep apnea. J Applied Physiol 81:643–652
8. Miki H, Hida W, Chonan T et al (1989) Effects of submental electrical stimulation during sleep on upper airway patency in patients with obstructive sleep apnea. Am Rev Resp Dis 140:1285–1289
9. Hida W, Okabe S, Miki H et al (1994) Effects of submental stimulation for several consecutive nights in patients with obstructive sleep apnoea. Thorax 49:446–452
10. 10. Guilleminault C, Powell N, Bowman B et al (1995) The effect of electrical stimulation on obstructive sleep apnea. Chest 107:67–73
11. Decker MJ, Haaga J, Arnold JL et al (1993) Functional electrical stimulation and respiration during sleep. J Applied Physiol 75:1053–1061