

Moderating Effect of Work Group Support on the Relation between Work Demand and Emotional Exhaustion among Gynecology Physicians

Ume Laila^{1*}, Rubina Hanif², Sana Rehman³

¹GIFT University Gujranwala, Pakistan, Assistant Professor

²National institute of psychology Quaid-e-Azam University Islamabad Pakistan, Assistant Professor

³Gift University Gujranwala Pakistan, Visiting Lecturer

***Corresponding author:**

Ms Sana Rehman

Department of Psychology,

Gift University,

Gujranwala.

Phone (or Mobile) No.: 03456214005

Email: sanarehmanpk@gmail.com

ABSTRACT

Background: Gynaecology practice demands psychological resistance, hard work, and persistence in delivering optimal patient care. The high job demand in terms of clinical diagnosis, careful prescription of medication, complex treatment decision making, and extra time services in gynecology occupations cause emotional turmoil among physicians. As a result, they experience substantial emotional exhaustion. The emotional exhaustion is imperative to control for better work performance, and the literature suggested that workgroup support found to be the negative predictor of emotional exhaustion. Therefore the current study aimed at investigating the moderating role of workgroup support between work demand and emotional exhaustion among Pakistani gynecology physicians.

Methods: To fill the previous gap, the cross-sectional research design was used to investigate the moderating role workgroup support between work demand and emotional exhaustion among gynecology physicians of Islamabad. A total of 287 males and females from the age range of 25-40 years were selected through convenient sampling. Maslach Burnout inventory, work demand, and workgroup support scales were used to collect the information from the participants.

Results: The results of the current study suggested the positive relationship between work demand and emotional exhaustion. While workgroup support found to be negatively correlated with emotional exhaustion. Furthermore, the workgroup support found to be a moderator between work demand and emotional exhaustion.

Conclusions: The findings of the current study depicted the significance of workgroup support in an organizational setting. However, the sample size was too modest to generalize the results of the present study. Therefore, further investigation would be performed to increase applicability.

[Ume Laila, Rubina Hanif, Sana Rehman. **Moderating Effect of Work Group Support on the Relation between Work Demand and Emotional Exhaustion among Gynecology Physicians**. Life Sci J 2023;20(8):43-49]. ISSN 1097-8135 (print); ISSN 2372-613X (online). <http://www.lifesciencesite.com>.06.doi:[10.7537/marslsj200823.06](https://doi.org/10.7537/marslsj200823.06).

Keywords: Work Demand, Emotional Exhaustion, Work Group Support, Gynaecology Physicians

INTRODUCTION

Emotional Exhaustion among workers is prevalent throughout the world. In particular medical physicians experience substantial emotional exhaustion due to high work demand. According to a recent meta-analysis, 68.1 % of physicians experience Emotional Exhaustion world widely.¹ The practice of medicine and gynecology focuses on a great deal of humanistic approaches. The care and treatment of patients demand hard work, psychological or physical resistance, and patience against stressful circumstances.² The gynecology physician experiences substantial hurdles

to provide healthcare facilities to patients due to a number of issues.³ The area of work issues for Gynaecology physicians is very vast, including diagnostic dilemmas, misdiagnosis, making an error in prescribing medicine, suboptimal patient care, and complex treatment decision making.^{4,5} The responsibilities to provide high quality, considering the above points, are known as work demand and potentially contribute to emotional turmoil and Emotional Exhaustion.

The high work demand imparts the adverse impact on physician personal as well as professional

life. The professional impact of high job demand can be seen in terms of Job dissatisfaction,⁶ turnover intentions,⁷ payback behaviors,⁸ and withdrawal behaviors.⁹ The personal impact of qualitative & quantitative workload has been found to be consistent with dominant tiredness, task-related stressor.¹⁰ The personal, as well as professional adversities, potentially contribute to burnout, in particular, Emotional Exhaustion. Literature is enriched with evidence-based studies recommended the positive relationship between work demand and Emotional exhaustion.^{11, 12}

Gynaecology Physician has to face high emotional demands all over the world, but in Pakistan, these emotional stipulates heightened their effects in the presence of long working hours, required specialized work, low incentives, multiple involvements, work-family spillover, and job insecurity.¹³ Gynecology Physicians, involved in the high work demand to fulfill the above-mentioned activities on a daily basis, consequently they report emotionally exhaustion.¹⁴ Recent research recorded the prevalence rate of EE among gynecology physician in Lahore was 71.6%.¹⁵ As mentioned above that high work demand adversely affect the personal as well as professional lives. Therefore support at work may ameliorate better consequences.

Work group-level support helps in complicated decision making, considering the optimal care of the patient.¹⁶ According to literature, buffering variables are workgroup level support, for example, trained paramedical staff, skilled technicians, supportive administration, and compatible colleagues.¹⁶ These are leading deterrents that have an influential impact on the nature of job-related demands and mental health-related outcomes.¹⁷ Furthermore, a recent study depicted that organizational support at work decreases the emotional exhaustion, which emerges due to high job demands.^{18,19} Work support ameliorates the better consequence and decreases the EE²⁰. Advanced countries have reported a lot of literature as considering job stress and emotional exhaustion among gynecology physicians, but the gap has been found while considering the Pakistani perspective as a developing country. Therefore, the present study is designed whilst taking account of the gynecology profession of Pakistan.

The theoretical model that attempts to link two independent research practices, including motivation and stress research traditions, is termed as "Job Demands–Resources (JD–R) model." This model states, "job demands as starters of health weakening and job resources as starters of motivation towards work."^{20,21} The interaction between job demands and resources is also well explained by the model along with experience of tiredness and aspects of work support".²² Emotional Exhaustion is the consequence

of exhaustion. In the long run, this leads to energy loss and devastation of emotional and physical potential.²³ The feelings where one feels the loss of energy and being emotionally and physically shattered are directly related to emotional exhaustion.²⁴ Emotional exhaustion as a result of work demand is quite obvious. Recent literature has been reported for emotional exhaustion caused by emotional task level demand among doctors and teachers.²⁵

Interpersonal support is actually the interpersonal relationship among colleagues. "Stress and the feeling of being ignored and isolated are also the consequence of poor communication and lack of teamwork support among professionals".^{26,27} From the above statement, it can be concluded that lack of workgroup support can act as a stress enhancer.^{27, 28} Workgroup support including colleagues and support staff like paramedical staff, technicians, hospital administration, and colleagues is considered to play a vital role in doctors' performance to sort out the solutions of the problems linked with their own stress and patient traumatic state.²⁹ The theoretical framework of the present study is founded by the conversation of resource theory and job demand and resource theory. JD-R model based on aforementioned theories integrates; work demands, workgroup support to gauge the level of emotional exhaustion among medical doctors.

Aim

The current study aimed at investigating the moderating role of work support between on the relation between work demand and emotional exhaustion.

Research Question

What correlation exist between Work demand, work group support and emotional exhaustion among gynecology physicians?

Does work group support play a moderating role between work demand and emotional exhaustion among gynecology physicians?

METHOD

The research data was collected in the city of Islamabad using standardise questionnaire. Two parallel hospitals i.e. Government and Private sector were approached. Therefore, the sample is representative gynecology physicians with all socioeconomic background.

Research design

The cross-sectional study was sampled with a convenient sampling technique.

Sample Size

The sample of the study comprised of 287 gynecology physicians including both gender. The participants were recruited using convenient sampling technique from the private and Government hospitals of Islamabad.

Inclusion Criteria

Only those participants were included in the current study who were working in public or private hospitals as a gynecology physicians.

Exclusion Criteria

All those gynecology physicians have not been included in the study who were not currently working in any hospital settings.

Data collection/measures

Emotional exhaustion

Maslach Burnout nine items Inventory was used to measure the Emotional Exhaustion.³⁰ Responses score may vary from 1 to 7 depending upon the frequency of state; Never, Once, Rarely, sometimes, often, Usually, Always. As per the current study scale's alpha reliability is .86.

Work demands

Work demands were measured by using job demands and resource scale, which comprised of eight items.³¹ Responses may be given with 1 to 4 depending upon agreement with the statement; absolutely, not at all, to a great extent and to some extent. The alpha coefficient of the scale has been found .80.

Work Group support

Sub-scale comprised of sixteen items from formerly reported scale were used.³¹ The scoring keys of the scale ranging from 4 (Always) to 1 (Never). The scale's alpha reliability in this study is .72.

Statistical Analysis

It took almost three months to collect data. Data was analyzed afterward through SPSS21 and Amos for running different statistical analyses. A comparison of research with the previous literature was conducted to test the exceptionality of the model.

Procedure

The national institute of Psychology was requested to give ethical approval to conduct this study. Hospital administrations were also requested to give their kind consent of approval to collect data from their doctors. Out of 480 questionnaires, only 287 were received completely filled. Deliberately both male and female participants were approached. The participants were ask to participate or withdraw from the study if they experience any kind of emotional, physical and psychological harm. The consent has been taken from the participants and finally they were given research protocol to complete.

RESULTS

Table 1 summaries the demographical information of the participants. Most of the participants reported their marital status as married (69.7 %), and (74.3%) belonged to the male gender. The participants working at private hospitals found to be (80.6 %) as well as public hospitals were (19.4%). More than half of the gynecology physicians (53.1 %) were having a contract from 1 to 5 years. The majority of participants

belonged to two group's i.e., 25 – 30 years (22.3 %) and 36 – 40 years (20.1 %), respectively. The average level of emotional exhaustion reported as (Mean=5.5), Average experience of work demands (Mean=3) and the average level of perceived support (Mean=2.5)

Table 1: Demographical Characteristics of Participants

Demographics	F	Percentage
Male	212	74.3%
Females	75	25.7%
Married	201	69.7%
Unmarried	86	30.3%
Private Hospitals	232	80.6%
Public Hospitals	55	19.4%
Contract 1-5 years	152	53.1%
Permanent Job	135	46.9%
Age 25-30	69	23.9%
36-40	218	76.1%

Table 2 depicted the Inter-correlation between Work demand, Work Group Support, and Emotional Exhaustion

The above table indicated that work demands are positively correlated with emotional exhaustion. In addition, a significant negative relationship exists between EE and Work support. Work support found to be negatively correlated with work demands.

Table 2: Inter-correlation between Work Demand, Emotional Exhaustion and Work Support

Variables	1	2	3	Mean	SD
Work Demand	1	--	--	3	1.88
EE	.60	1	--	5.5	2.10
Work Support	-.51	-.72	1	2.5	1.71

Table 3 illustrated the Fit indices of the model workgroup support as moderator. The value of chi-square (1.669) found to be non-significant ($p < 0.05$). The researchers implemented two measures, such as the Goodness of Fix Model (GFM) and Comparative Fit Index (CFI) used two to explore the model of fit. Values of CFI (0.997) and NFI (0.992) are close to 1, which shows the goodness of the model fit.

Table 3: Fit indices of the Model Work group support as Moderator

		Fit Indices				
Mod els	Chi Square	D f	CFI	N FI	I FI	RMS EA
M1	1.669	1 97	0.9 97	0.99 2	0.9 99	.021

Note: χ^2 =Chi-square; df=degree of freedom;
RMSEA=root mean square error of approximation;
GFI=goodness of fit index; CFI= comparative fit index;
Figure 1

NFI = normed fit index; TLI =tucker-lewis index.
Errors within the factors were let correlated.
**P <.001

The findings of the Amos 21.0, to test the proposed model are as follow.

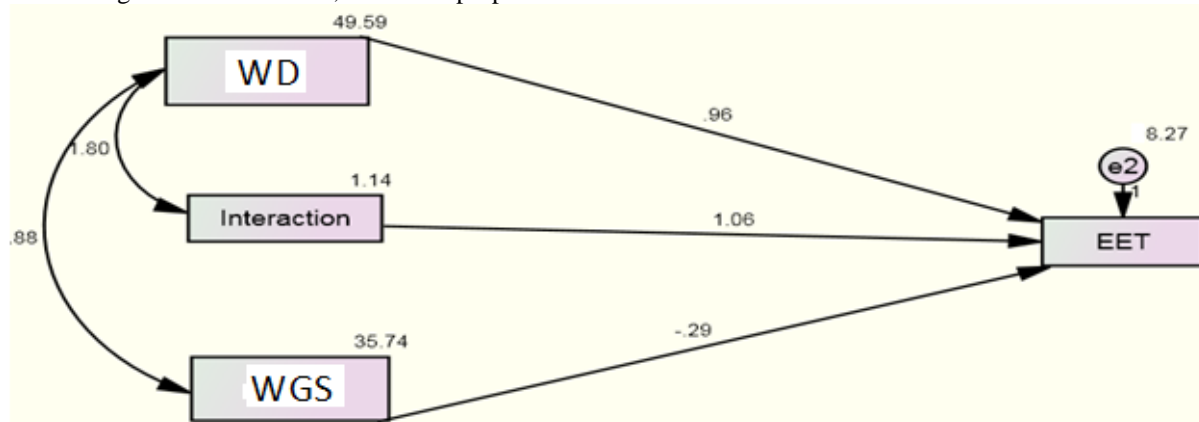


Figure 1: Moderating effects of work group support

Figure 1 depicted that work group support played a moderating role between work demand and emotional exhaustion. Work group support decrease the magnitude of emotional exhaustion among gynecology physicians.

DISCUSSION

The gynecology physicians in Pakistan experience substantial emotional exhaustion due to high job demands. It was mandatory to study the moderating role of workgroup support to decrease the magnitude of emotional exhaustion among gynecology physician. The literature in this regard found to be scared. Therefore, the current study aimed at investigating the moderating role of workgroup support on the relation between work demand and emotional exhaustion. The 287 gynecology physicians have been included in the current study through convenient sampling techniques. AMOS 21 version was used to assess the associations between variables, and results were discussed in light of the reported literature. Our first objective was achieved after the statistical tests that there is a significant positive relationship between work demands and emotional exhaustion among doctors. Work demands in our study have been defined as workload, qualitative workload, emotional demands, and long working shifts. The findings of the current study suggested that the gynecology physician experience high emotional exhaustion as work demands ae high. Literature supported the findings of the current study and recommended the strong relationship between work demand and emotional exhaustion^{11, 12}.

The second objective of our study is also positively supported by the statistical tests; it implies that workgroup level support has a significant negative impact on emotional exhaustion, which also got support from the research literature, including multiple samples with both cross-sectional and longitudinal

studies^{16, 17, 18}. Furthermore, the high group support is associated with job satisfaction and low drawback behaviours^{6, 9}.

The formulated third objective was about the cushioning effect of workgroup support between work demands and emotional exhaustion among gynecology physicians and has been positively proven after the statistical application tests. The literature supported the finding of the current study as reported the work support as a moderator between work demand and emotional exhaustion³⁰. It is evident from results that doctors are facing high work-related demands which are leading them towards emotional exhaustion. On the other side, facilitating role colleagues, paramedical staff, technicians, especially at Operation Theatre, may help them to lessen their hazardous effects of emotional exhaustion.

LIMITATIONS

Limitations experienced by the researcher include the sampling technique, which was selected conveniently so the results cannot be generalized to all gynecology physicians in Pakistan. Data attainment remained inconsistent with the planned activity, which was delimited using personal relations. Furthermore, the sample size was too modest to generalize the results of the current study.

CONCLUSION

In conclusion, the finding of the cross-sectional study depicted the significance of workgroup support in an organizational setting to improve mental health as well as work performance. The main purpose of the designed study was to test the relationship and effect of

prescribed variables interrelated as per the “job demand and resource model” on emotional exhaustion among the medical doctors.

Results show that there is a significant positive relationship between work demands and emotional exhaustion among gynecology physicians. Furthermore, it has been depicted that among gynecology physicians, emotional exhaustion got significantly decreased with increasing level of work group support.

ACKNOWLEDGEMENTS

Author would like to thank Dr. Rubina Hanif, Assistant Professor of Qaid e Azam University for her guidance, encouragement and assistance in keeping our progress on schedule. Furthermore, a special thanks to Qaid e Azam University and GIFT University for collaborating together in organizational psychology research to carry out the study.

DECLARATIONS

Funding: No Funding Resources

Conflict of interest: None Declared

Ethical approval: Not Required

REFERENCES

- [1]. Yoon JD, Rasinski KA, Curlin FA. Conflict and emotional exhaustion in obstetrician-gynaecologists: a national survey. *J Med Ethics* 2010;36(12):731-5. doi: 10.1136/jme.2010.037762. PMID: 21112936; PMCID: PMC3632257.
- [2]. Ferreira Bortoletti F, Teresa Benevides-Pereira AM, Vasconcellos EG, Siqueira JO, Araujo Júnior E, Nardoza LM, Sebastiani RW, Moron AF. Triggering risk factors of the burnout syndrome in OB/GYN physicians from a reference public university of Brazil. *ISRN Obstet Gynecol*. 2012;2012:593876. doi: 10.5402/2012/593876. Epub 2012(6). PMID: 23304541; PMCID: PMC3523535.
- [3]. Aldrees TM, Aleissa S, Zamakhshary M, Badri M, Sadat-Ali M. Physician well-being: prevalence of burnout and associated risk factors in a tertiary hospital, Riyadh, Saudi Arabia. *Ann Saudi Med*. 2013;33(5):451-6. doi: 10.5144/0256-4947.2013.451. PMID: 24188938; PMCID: PMC6074879.
- [4]. Sablik Z, Samborska-Sablik A, Drożdż J. Universality of physicians' burnout syndrome as a result of experiencing difficulty in relationship with patients. *Arch Med Sci*. 2013; (3):398-403. doi: 10.5114/aoms.2012.28658. Epub 2012 (22). PMID: 23847658; PMCID: PMC3701961.
- [5]. Moradi Y, Baradaran HR, Yazdandoost M, Atrak S, & Kashanian M. Prevalence of Burnout in residents of obstetrics and gynecology: A systematic review and meta-analysis. *Medical journal of the Islamic Republic of Iran* 2015;29(4): 235.
- [6]. Zhang Y, and Feng X. The relationship between job satisfaction, burnout, and turnover intention among physicians from urban state-owned medical institutions in Hubei, China: a cross-sectional study. *BMC health services research* 2011;11: 235
- [7]. Malik MI, Zahir A, Khan MA, Ahmed, M. Developing and testing a model of burnout at work and turnover intentions among doctors in Pakistan. *International Journal of Business and Management* 2010;5(10): 234-247.
- [8]. Azhar GS, Azhar, AZ, and Azhar AS. Overwork among residents in India: a medical resident's perspective. *Journal of family medicine and primary care* 2012;1(2): p. 141-143.
- [9]. Williams ES, Konrad TR, Scheckler WE, Pathman DE, Linzer M, McMurray JE, Gerrity M, Schwartz M. Understanding physicians' intentions to withdraw from practice: the role of job satisfaction, job stress, mental and physical health. *Health care management review* 2001;26(1): 7-19.
- [10]. Dahlin M, Joneborg N, and Runeson B. Stress and depression among medical students: A cross-sectional study. *Medical education* 2005; 39(6): 594-604.
- [11]. Laila U, & Hanif R. Development and validation of job demand and resources indigenous scale: A developing country perspective. *Pakistan Business Review* 2018; 19(4): 1029-1044. <http://dx.doi.org/10.22555/prb.v19i4.1880>
- [12]. Schaufeli WB, and Bakker AB. Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of organizational Behavior* 2004; 25(3): 293-315.
- [13]. Asghar AA, Faiq A, Shafique S, Siddiqui F, Asghar N, Malik S, Kamal SD, Hanif A, Qasmani MF, Ali SU, Munim S, Solangi A, Zafar A, Sohail MO, Aimen A. Prevalence and predictors of the burnout syndrome in medical students of Karachi, Pakistan. *Cureus* 2019;11(6). doi: 10.7759/cureus.4879. PMID: 31417824; PMCID: PMC6687472.
- [14]. Rua C, Body G, Marret H, Ouldamer L. Prevalence of burnout among obstetrics and gynecology residents. *J Gynecol Obstet Biol Reprod (Paris)* 2015;44(1):83-7. doi: 10.1016/j.jgyn.2013.12.001.
- [15]. Waheed K, Liaqat N, Ejaz S, Khanum A, Ijaz S, Butt A, Randhawa FA, Naheed I, Javed S. Burnout among gynaecological residents in Lahore, Pakistan: A cross-sectional Survey 2017; 1318-1322
- [16]. Prins JT, Hoekstra-Weebers JE, Gazendam-Donofrio SM, Van De Wiel HB, Sprangers F,

- Jaspers FC, Van Der Heijden FM. The role of social support in burnout among Dutch medical residents. *Psychol Health Med* 2007;12(1):1-6
- [17]. Baba VV, Jamal M, and Tourigny L. Work and mental health: A decade in Canadian research. *Canadian Psychology/Psychologie canadienne* 1998; 39(1-2): 94.
- [18]. Iorga M, Socolov V, Muraru D, Dirtu C, Soponaru C, Ilea C, Socolov DG. Factors Influencing Burnout Syndrome in Obstetrics and Gynecology Physicians. *Biomed Res Int*. 2017. doi: 10.1155/2017/9318534. Epub 2017 Dec 5. PMID: 29359161; PMCID: PMC5735583.
- [19]. Kumar S. Burnout and Doctors: Prevalence, Prevention and Intervention. *Healthcare (Basel)*. 2016;4(3):37. doi: 10.3390/healthcare4030037. PMID: 27417625; PMCID: PMC5041038.
- [20]. Fox ML, Dwyer DJ, and Ganster DC. Effects of stressful job demands and control on physiological and attitudinal outcomes in a hospital setting. *Academy of Management journal* 1993; 36(2): 289-318.
- [21]. Williams DR, Yan Yu, Jackson JS, Anderson NB. Racial differences in physical and mental health socio-economic status, stress and discrimination. *Journal of health psychology* 1997;2(3): 335-351.
- [22]. Leiter MP, Harvie P, and Frizzell, C. The correspondence of patient satisfaction and nurse burnout. *Social science & medicine* 1998;47(10): 1611-1617.
- [23]. Visser MR, Smets EM, Oort FJ, De Haes HC. Stress, satisfaction and burnout among Dutch medical specialists. *CMAJ*. 2003;168(3):271-5. PMID: 12566331; PMCID: PMC140468.
- [24]. Frese M. Social support as a moderator of the relationship between work stressors and psychological dysfunctioning: a longitudinal study with objective measures. *Journal of occupational health psychology* 1999; 4(3): 179.
- [25]. Singh-Manoux A, Clarke P, and Marmot M. Multiple measures of socio-economic position and psychosocial health: proximal and distal measures. *International Journal of Epidemiology* 2002; 31(6): 1192-1199.
- [26]. Maslach C, Schaufeli WB, and Leiter MP. Job burnout. *Annual review of psychology*, 2001; 52(1): 397-422.
- [27]. Greenhaus JH, and Beutell NJ. Sources of conflict between work and family roles. *Academy of management review* 1985; 10(1): 76-88.
- [28]. Goussinsky R, and Livne Y. Coping with interpersonal mistreatment: the role of emotion regulation strategies and supervisor support. *Journal of Nursing Management* 2016.
- [29]. Karatepe OM. Do job resources moderate the effect of emotional dissonance on burnout? A study in the city of Ankara, Turkey. *International Journal of Contemporary Hospitality Management* 2011;23(1): 44-65.
- [30]. Maslach C, Jackson SE, and Leiter MP. Maslach burnout inventory. *Evaluating stress: A book of resources* 1997; 3: 191-218.
- [31]. Laila U, & Hanif R. Development and validation of job demand and resources indigenous scale: A developing country perspective. *Pakistan Business Review* 2018; 19(4): 1029-1044. <http://dx.doi.org/10.22555/prb.v19i4.1880>.

Table 1: Demographical Characteristics of Participants

Demographics	F	Percentage
Male	212	74.3%
Females	75	25.7%
Married	201	69.7%
Unmarried	86	30.3%
Private Hospitals	232	80.6%
Public Hospitals	55	19.4%
Contract 1-5 years	152	53.1%
Permanent Job	135	46.9%
Age 25-30	69	23.9%
36-40	218	76.1%

Table 2: Intercorrelation between Work Demand, Emotional Exhaustion and Work Support

Variables	1	2	3	Mean	SD
Work Demand	1	--	--	3	1.88
EE	.60	1	--	5.5	2.10
Work Support	-.51	-.72	1	2.5	1.71

Table 3: Fit indices of the Model Work group support as Moderator

Models	Fit Indices					
	Chi Square	Df	CFI	NFI	IFI	RMSEA
M1	1.669	1	0.997	0.992	0.999	.021

Note. χ^2 = Chi-square; df = degree of freedom; RMSEA = root mean square error of approximation; GFI = goodness of fit index; CFI = comparative fit index; NFI = normed fit index; TLI = tucker-lewis index. Errors within the factors were let correlated.

**P < .001

Figure 1

The findings of the Amos 21.0, to test the proposed model are as follow.

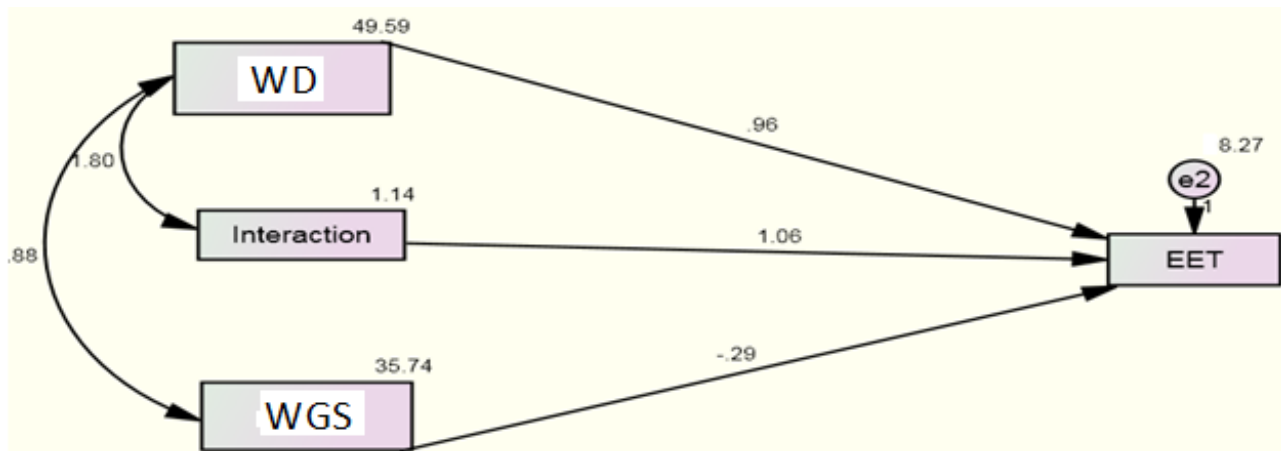


Figure 1: Moderating effects of work group support

8/12/2023