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THE RELATIONSHIP BETWEEN OCCUPATIONAL BURNOUT AND JOB STRESS IN PHARMACISTS AND PHARMACY EMPLOYEES, MUŞ

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ABSTRACT

Burnout is an occupational phenomenon resulting from chronically unmanaged work-related stress and is highly prevalent among healthcare workers. This study looked at how work stress affects pharmacists and pharmacy workers in Muş and nearby areas. It checked how stress is connected to three feelings: feeling very tired emotionally, feeling distant or unkind to customers, and feeling proud of their work. The study also looked at things like their age, gender, and other personal details. As the number of individuals in the target group was limited, no probability sampling was conducted and 140 individuals working in 60 community pharmacies across six districts were reached. Data were collected with the Maslach Burnout Inventory, the Job Stress (Job Content) Scale and a personal information form. Because two of the four tested sub-dimensions (depersonalisation and personal accomplishment) did not meet the normality assumption and several subgroups were small and unbalanced, non-parametric tests were applied uniformly: relationships were analysed with Spearman correlation and group comparisons with non-parametric tests (Mann-Whitney U, Kruskal-Wallis H), reporting effect sizes. In line with Maslach's methodological recommendation, the three dimensions were analysed separately rather than as a single total burnout score. Participants showed moderate emotional exhaustion ($M = 2.69$), low depersonalisation ($M = 1.88$) and high personal accomplishment ($M = 3.73$), indicating relatively contained overall burnout. Occupational stress was positively associated with emotional exhaustion ($r_s = .19$) and depersonalisation ($r_s = .20$); the strongest associations emerged with the social support sub-dimension (emotional exhaustion $r_s = -.47$; depersonalisation $r_s = -.42$). Working nine hours or more per day and dissatisfaction with earnings were related to higher emotional exhaustion, with the earnings-satisfaction finding remaining significant after Bonferroni correction ($r = .41$). The findings indicate that perceived social support at work is the most salient protective resource against burnout.

Keywords: Occupational stress, occupational burnout, social support, pharmacist, pharmacy employees.

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INTRODUCTION

The role of work in the life of an individual extends beyond the mere satisfaction of economic needs; it also plays a pivotal role in shaping their sense of identity, social status, and psychological well-being. The intense pace, increased workload and pressure of interpersonal interaction that characterise modern business life can result in stress and related burnout among employees. Stress is defined as the non-specific response of the organism to the adaptation effort expected of it (Selye, 1976); when it gains permanence, it transforms into a factor that threatens the physical and mental health of the individual.

The concept of burnout was first introduced to the literature by Freudenberger (1974) as a state of wear and tear due to the loss of energy and resources observed in human service professions. The World Health Organization has also defined burnout in the 11th International Classification of Diseases (ICD-11) as an occupational phenomenon conceptualized as a result of chronic workplace stress that has not been successfully managed (World Health Organization [WHO], 2019).

Maslach and Jackson's (1981) seminal work addressed the concept of burnout in a systematic manner, proposing a three-dimensional structure to delineate the phenomenon. This structure encompasses emotional exhaustion, characterised by the perception of emotional resources being depleted, depersonalisation, marked by negative and detached attitudes towards recipients of services, and personal accomplishment, defined by the individual's perception of competence and success in their work. Low scores in this dimension are indicative of burnout. In their seminal 2001 study, Maslach, Schaufeli, and Leiter advanced the concept of burnout as a chronic response to prolonged work-related stressors, positing its heightened prevalence, particularly in occupations involving intensive interpersonal interaction. Maslach and Jackson (1981) emphasised that the three dimensions should not be reduced to a single composite burnout score, but should be evaluated separately. Indeed, the meta-analysis by Lee and Ashforth (1996) also reveals that these three dimensions are associated with different antecedents and consequences, and therefore need to be examined separately.

One of the most common theoretical frameworks utilised to explain job stress is the job demand-control model developed by Karasek (1979). As posited by the aforementioned model, an increase in job stress is observed in situations where job demands (workload) are high and the employee's control over the job (skill utilisation and decision latitude) is limited. Subsequent to the incorporation of the social support dimension into the model, the approach underwent expansion, resulting in the development of the job demand-control-support model. It has been posited that support received from supervisors and colleagues in the workplace serves as a mitigating factor against the adverse effects of elevated job demands (Karasek & Theorell, 1990). The adaptation of the measurement tool based on this model to Türkiye was conducted by Demiral et al. (2007). Current studies also support the notion that workplace social support and supervision act as protective resources against burnout (Zhou et al., 2022).

Healthcare professionals represent one of the most high-risk occupational groups in terms of burnout. The field of pharmacy, which encompasses a wide range of activities from the procurement of medicines to the provision of patient counselling, is characterised by the need for continuous communication and a high cost of error (Dolapçioğlu et al., 2016). A recent systematic review revealed that burnout is prevalent among pharmacists. The review, which encompassed 11,306 participants from eight countries, identified significant risk factors associated with burnout (Dee et al., 2023). Research examining the relationship between job stress, organisational climate, and burnout in pharmacists also demonstrates that job stress is a primary antecedent of increased burnout (Lan et al., 2020). During the course of the pandemic, it has been reported that the job demands and stress levels of pharmacists increased significantly (Johnston et al., 2022; Lange et al., 2022). Research conducted in Turkey also indicates that the job stress levels of community pharmacists can be high and that this stress is associated with various sociodemographic characteristics (Kırpık, 2020; Kırpık & Doğan, 2020). However, studies addressing the relationship between job stress and burnout along with sociodemographic variables in pharmacists and pharmacy employees, especially in provinces outside major cities, are limited (Wash et al., 2024). In this context, conducting the research in Muş province, which is a relatively understudied region, offers a novel contribution.

In accordance with this objective, the purpose of this research is to examine the relationship between job stress and the three sub-dimensions of occupational burnout among pharmacists and pharmacy employees working in community pharmacies in Muş province and its districts, together with the sub-dimensions of job stress and sociodemographic characteristics. In pursuit of this objective, the following inquiries were addressed:

1. The present study seeks to ascertain whether a significant relationship exists between the level of job stress and the sub-dimensions of burnout (emotional exhaustion, depersonalisation, and personal accomplishment).
2. The central research question guiding this study is whether there are significant relationships between the sub-dimensions of job stress (workload, skill utilisation, decision latitude, job control, social support) and the sub-dimensions of burnout.
3. Do the sub-dimensions of burnout and the level of job stress vary significantly according to gender, marital status, occupational group, professional seniority, daily working hours, education level, monthly income, satisfaction with earnings, and the primary factor in choosing the profession?

METHOD

Research Model

In the research, a correlational survey model was employed to ascertain the existence and degree of co-variation between two or more variables. As the data were collected in a single time frame, the study has a cross-sectional design; therefore, the relationships obtained were interpreted not as causality, but as co-variation.

Study Group

The target population of the research consists of pharmacists and pharmacy employees working in community pharmacies operating in Muş province and its districts, who are affiliated with the Batman-Siirt-Muş Chamber of Pharmacists. Due to the limited number of individuals in the target population, probability-based sampling was not performed, and it was aimed to reach all accessible voluntary individuals. In this context, data were obtained from 140 individuals working in 60 community pharmacies located in six districts (Central, Varto, Malazgirt, Bulanık, Hasköy, Korkut). It is imperative to exercise caution when generalising the findings of this study, given its reliance on accessible voluntary individuals.

Data collection was planned and implemented systematically across the six districts of Muş province. Survey forms were reproduced in advance and grouped by district, with the distribution schedule organised according to inter-district distances, the number of eligible participants, and pre-arranged appointments with community pharmacies. Data were collected between 20 June and 19 September 2022. The research team visited each district containing community pharmacies in person, distributing the survey forms directly to pharmacists and pharmacy employees at their workplaces; repeat visits were subsequently conducted to retrieve the completed forms. In instances where a form could not be completed on-site or was lost, an online version of the questionnaire, hosted on Google Forms, was offered as an alternative mode of administration; access to this online form was provided directly by the project coordinator and the researcher to the relevant participants. Of the 140 responses obtained, 87 (62.1%) were collected through the paper-based, face-to-face procedure, and 53 (37.9%) were completed online.

Data Collection Tools

The collection of data was conducted using the following instruments: a personal information form, the Maslach Burnout Inventory (MBI), and the Job Stress (Job Content) Questionnaire (JCQ).

The Maslach Burnout Inventory

The inventory was developed by Maslach and Jackson (1981) and comprises 22 items rated on a five-point scale, assessing three dimensions: emotional exhaustion, depersonalisation, and personal accomplishment. It was adapted into Turkish by Ergin (1992). In this study, reliability coefficients were .90 for emotional exhaustion, .68 for depersonalisation, and .75 for personal accomplishment. According to the original creators, these three parts are kept separate and are not combined into one score.

Job Stress Questionnaire

The scale is grounded in the job demand-control-support model and comprises four sub-dimensions: workload (demand), skill utilisation, decision latitude, and social support. Job control is derived from the combination of skill utilisation and decision latitude, and the overall job stress score is calculated as the ratio of the workload

score to the job control score; a ratio below 1 indicates that job control exceeds job demand, suggesting comparatively low stress. The scale demonstrates adequate overall reliability; however, the workload and skill utilisation sub-dimensions display comparatively lower internal consistency, a limitation that should be taken into account when interpreting the related findings.

Data Analysis

Data analysis was conducted between 19 October and 5 November 2022. Responses obtained through the paper-based and online administration modes were merged into a single dataset and transferred to a digital spreadsheet prior to analysis. The data were analyzed using SPSS. Normality was evaluated through the Kolmogorov-Smirnov test, skewness-kurtosis values, and distribution graphs. While job stress (ratio) ($KS\ p = .843$) and emotional exhaustion ($KS\ p = .539$) scores showed a normal distribution, depersonalization ($p = .028$) and personal accomplishment ($p = .004$) scores did not meet the normality assumption. Since a significant portion of the variables did not satisfy the normality assumption and many subgroups were small and unbalanced, non-parametric tests were used uniformly in the analyses to ensure consistency; Spearman's rank correlation (r_s) was utilized for relationships, and non-parametric tests (Mann-Whitney U for two groups, Kruskal-Wallis H for more than two groups) were used for group comparisons. Effect sizes were reported as r_s and a 95% confidence interval for correlations; $(z/\sqrt{N})$ for the Mann-Whitney U ; and epsilon-squared (ϵ^2) for the Kruskal-Wallis H . The significance level was accepted as .05; since a large number of comparisons were made, a Bonferroni correction was also applied to the main significant findings, while other group differences were evaluated as exploratory.

The study was conducted in accordance with the ethical principles approved by the Muş Alparslan University Ethics Committee. Participation was voluntary, and the confidentiality of respondents' information was ensured throughout the research process. This study was supported by TÜBİTAK (The Scientific and Technological Research Council of Türkiye) under an undergraduate research funding programme. A portion of the findings was presented as an oral presentation at an international science and innovation congress held in Diyarbakır on November 26-27, 2022.

FINDINGS

Descriptive Findings Regarding the Participants

The sociodemographic characteristics of the participants are presented in Table 1.

Table 1. Distribution of the Participants' Sociodemographic Characteristics

Variable	Group	n	%
Gender	Male	116	82.9
	Female	24	17.1
Marital Status	Married	88	62.9
	Single	52	37.1
Occupational Group	Pharmacist	48	34.3

Variable	Group	n	%
	Pharmacy technician	42	30
	Senior apprentice	46	32.9
	Other	4	2.9
Education Level	Primary-Middle school	4	2.9
	High school	59	42.1
	Associate degree	25	17.9
	Bachelor's degree	38	27.1
	Master's degree	13	9.3
	Doctorate (PhD)	1	0.7
Professional Seniority	0-5 years	35	25
	6-10 years	30	21.4
	11-15 years	25	17.9
	16-20 years	22	15.7
	21-25 years	15	10.7
	26 years and over	13	9.3
Daily Working Hours	6-8 hours	59	42.1
	9 hours and over	81	57.9
Monthly Income	4000 TL and below	28	20
	4001-5000 TL	57	40.7
	5001-6000 TL	10	7.1
	6001-7000 TL	10	7.1
	7001-8000 TL	10	7.1
	8001 TL and over	24	17.1
Satisfaction with Earnings	Yes	32	22.9
	No	82	58.6
	Undecided	20	14.3
Factor in Choosing Profession	Personal choice/interest	68	48.6
	Obligation	20	14.3
	Other	20	14.3
	Family's wish	13	9.3
	Economic	9	6.4
	Prestige	4	2.9

Note. N = 140. Mean age is 35.41 (median = 33, range: 17-79). Since there are a small number of non-respondents for income, satisfaction with earnings, and factor in choosing profession, some percentages do not total to 100%.

According to Table 1, 82.9% of the participants are male and 62.9% are married; the occupational distribution is relatively balanced among pharmacists (34.3%), pharmacy technicians (30.0%), and senior apprentices/kalfas (32.9%). Of the participants, 57.9% work 9 hours and over per day, and 58.6% do not find their earnings satisfactory. It is noteworthy that the high-income brackets (10 individuals each) and those who chose the profession for prestige (4 individuals) constitute very small groups.

Descriptive Findings and Reliability Regarding the Scales

The descriptive statistics, normality indicators, and reliability coefficients belonging to the sub-dimensions of burnout and job stress are given in Table 2.

Table 2. Descriptive Statistics, Normality, and Reliability Regarding the Scale Sub-Dimension

Dimension	M	SD	Min	Max	Skewness	Kurtosis	α
Emotional Exhaustion	2.69	.91	1.00	5.00	.20	-.34	.90
Depersonalization	1.88	.74	1.00	4.40	.93	.76	.68
Personal Accomplishment	3.73	.73	1.00	5.00	-1.23	2.28	.75
Workload (demand)	3.00	.49	1.60	4.00	-.23	-.13	.48
Skill Utilization	3.48	.46	2.00	4.00	-.92	.41	.43
Decision Latitude	3.48	.67	1.00	4.00	-1.11	.59	.71
Job Control	3.48	.45	2.00	4.00	-.90	.30	—
Social Support	3.67	.53	1.33	4.00	-2.10	4.75	.89
Job Stress (ratio)	.87	.16	.44	1.63	.48	2.89	.76

Note. $N = 140$. α = Cronbach's alpha value for job stress belongs to the entire scale. Since job control is calculated from the combination of skill utilization and decision latitude, separate α is not provided. M = Mean; SD = Standard Deviation; α = Cronbach's alpha.

The participants exhibited a moderate level of emotional exhaustion ($M = 2.69$), low depersonalisation ($M = 1.88$), and high personal accomplishment ($M = 3.73$). It is important to note that low personal accomplishment is an indicator of burnout. Conversely, a high personal accomplishment score indicates low burnout in this dimension. Consequently, the general profile of burnout exhibited by the participants is relatively limited, with the most prominent component being emotional exhaustion. In the context of the job stress sub-dimensions, the highest mean is observed in the domain of social support ($M = 3.67$), while the lowest mean is observed in the domain of workload ($M = 3.00$). The job stress mean, calculated as the demand/control ratio, is .87 and is below 1; this indicates that, on average, the participants possess a higher level of control than job demand, along with strong social support. The reliability of the workload sub-dimension ($\alpha = .48$) and skill utilisation sub-dimension ($\alpha = .43$) is low, and the related findings should be interpreted with this limitation in mind.

The Relationship Between Job Stress and Burnout Sub-Dimensions

The Spearman correlation coefficients between job stress and its sub-dimensions, and the sub-dimensions of burnout are presented in Table 3.

Table 3. Spearman Correlations Between Job Stress Dimensions and Burnout Sub-Dimensions

Job Stress Dimension	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Workload (demand)	.04	-.04	.08
Skill Utilization	-.09	-.26*	.23*
Decision Latitude	-.20*	-.24*	.19*
Job Control	-.13	-.28*	.24*
Social Support	-.47*	-.42*	.21*
Job Stress (demand/control ratio)	.19*	.20*	-.14

Note. $N = 140$. * $p < .05$. Job stress (ratio) – emotional exhaustion $r_s = .19$, 95% CI [.02, .34]; – depersonalization: $r_s = .20$, 95% CI [.04, .36]. Social support – emotional exhaustion: $r_s = -.47$, 95% CI [-.58, -.33].

According to Table 3, job stress calculated as the demand/control ratio is weakly and positively correlated with emotional exhaustion ($r_s = .19, p = .025$) and depersonalization ($r_s = .20, p = .016$); its relationship with personal accomplishment is not significant ($r_s = -.14, p = .090$). Accordingly, as job stress increases, emotional exhaustion and depersonalization also increase. At the sub-dimension level, the strongest relationships emerged with social support: as social support increases, emotional exhaustion ($r_s = -.47$) and depersonalization ($r_s = -.42$) decrease markedly, whereas personal accomplishment increases ($r_s = .21$). Job control, decision latitude, and skill utilization are also negatively correlated with depersonalization and positively correlated with personal accomplishment. In contrast, workload (demand) showed no significant relationship with any burnout dimension; this situation may stem partly from the low reliability of the workload sub-dimension.

Differentiation According to Sociodemographic Variables

The Mann-Whitney U test results regarding the two-category variables (gender, marital status, daily working hours) are given in Table 4.

Table 4. Mann-Whitney U Test Results of Burnout Dimensions and Job Stress According to Two-Category Variables

Variable / Comparison	Scale	U	p	r
Gender (Male/Female)	Emotional Exhaustion	1240	.400	.07
	Depersonalization	1242	.406	.07
	Job Stress	1392	1.000	.00
Marital Status (Married/Single)	Emotional Exhaustion	2360	.756	.03
Working Hours (6-8 / 9+ hours)	Emotional Exhaustion	1900	.039*	.17
	Personal Accomplishment	3026	.007*	.23
	Job Stress	1796	.012*	.21

Note. * $p < .05$. Working hours: Emotional exhaustion ($M = 2.83 > 2.51$) and job stress ($M = .90 > .83$) are higher, while personal accomplishment ($M = 3.57 < 3.95$) is lower among those working 9 hours and over.

According to Table 4, there is no significant difference in any dimension according to gender and marital status ($p > .05$). In contrast, three significant differences were found according to daily working hours: emotional exhaustion ($U = 1900, p = .039, r = .17$) and job stress ($U = 1796, p = .012, r = .21$) are higher, while personal accomplishment ($U = 3026, p = .007, r = .23$) is lower among those working 9 hours and over per day. Since these findings are based on relatively balanced groups (59/81), they are among the most robust results of the study.

In the Kruskal-Wallis H test regarding variables with more than two categories, no significant difference was found in any dimension according to occupational group, professional seniority, and education level ($p > .05$). The results regarding the variables for which a significant difference was detected (monthly income, satisfaction with earnings, factor in choosing profession) are presented in Table 5.

Table 5. Kruskal-Wallis H Test Results Regarding the Variables with Significant Differences

Variable	Scale	df	χ^2	p	ϵ^2
Monthly Income	Emotional Exhaustion	5	12.93	.024*	.09
	Depersonalization	5	17.29	.004*	.13
	Job Stress	5	16.78	.005*	.12
Satisfaction with Earnings	Emotional Exhaustion	2	23.78	.000*	.18
	Depersonalization	2	7.85	.020*	.06
Factor in Choosing Profession	Emotional Exhaustion	5	19.65	.001*	.15
	Depersonalization	5	13.15	.022*	.10
	Personal Accomplishment	5	18.53	.002*	.14

Note. * $p < .05$. ϵ^2 = epsilon-squared effect size. No significant difference was found according to occupational group, professional seniority, and education level.

According to Table 5, significant differences, primarily in emotional exhaustion, were found across the variables of monthly income, satisfaction with earnings, and the factor in choosing the profession. However, because the income groups are small (10 individuals each) and their mean ranks exhibit a non-linear pattern, and since the prestige group in the factor in choosing the profession consists of only 4 individuals, these results need to be evaluated as exploratory. In contrast, for the satisfaction with earnings variable, which is based on relatively balanced groups, the emotional exhaustion level of participants who are not satisfied with their earnings ($M = 3.01$) is significantly higher than that of those who are satisfied ($M = 2.18$) and this difference retains its significance even after the Bonferroni correction ($U = 612$, adjusted $p < .001$, $r = .41$). The level of those who are dissatisfied is also higher than that of the undecided individuals ($M = 2.43$, adjusted $p = .008$, $r = .30$).

CONCLUSION and DISCUSSION

This study examined the relationship between job stress and the three sub-dimensions of burnout among pharmacists and pharmacy employees. Analysing each sub-dimension separately, rather than aggregating them into a single composite score, yielded more nuanced and interpretable findings. Participants exhibited moderate emotional exhaustion, low depersonalisation, and high personal accomplishment, indicating a relatively limited overall burnout profile. In contrast to international studies reporting a high prevalence of burnout among pharmacists, the present sample appeared to benefit from strong perceived social support and job control, which may account for this comparatively favourable profile. A modest positive relationship was observed between job stress (the demand-control ratio) and both emotional exhaustion and depersonalisation, corroborating prior evidence that elevated job stress is associated with increased burnout. Nevertheless, these associations were weak in magnitude, and the overlap between emotional exhaustion and general job stress may partly reflect shared underlying constructs rather than fully independent phenomena.

The most significant finding of the research is the strong relationships between social support and the burnout dimensions (emotional exhaustion $r_s = -.47$; depersonalization $r_s = -.42$). It is evident that an enhancement in perceived social support within the workplace is accompanied by a significant reduction in the prevalence of burnout. This finding is directly commensurate with the job demand-control-support model (Karasek & Theorell,

1990) and contemporary studies that posit social support as a primary resource in the prevention of burnout (Zhou et al., 2022). In addition, the findings indicate a negative correlation between job control, decision latitude, and skill utilisation on the one hand, and burnout on the other. This lends further support to the protective function of autonomy and supportive relationships in the workplace. Conversely, the absence of a significant relationship between workload and any burnout dimension can be attributed in part to the low reliability of this sub-dimension and should be interpreted with caution.

With regard to sociodemographic variables, no significant differences were found according to gender, marital status, occupational group, seniority, and education level. This result is consistent with studies reporting that burnout among healthcare professionals is associated with job- and organisation-induced factors rather than demographic variables (Çevik & Özbacı, 2020). The most significant disparities were observed in the domain of daily working hours; the levels of emotional exhaustion and job stress were found to be elevated, and personal accomplishment was diminished, among individuals who worked for a minimum of nine hours per day. The present finding that extended working hours function as a risk factor for burnout is consistent with the extant literature reporting a relationship between working hours and burnout in healthcare professionals (Dee et al., 2023; Wash et al., 2024). Conversely, the correlation between dissatisfaction with earnings and heightened emotional exhaustion is a robust and consistent finding that maintains its relevance even following the Bonferroni correction. This observation underscores the pivotal role of economic satisfaction in the development of burnout. In comparison to studies that have reported elevated levels of job stress among community pharmacists in Turkey (Kırpık, 2020), it is hypothesised that the comparatively limited burnout profile observed in this sample can be attributed to the participants' high levels of social support and job control. However, significant disparities in income and career choices should be interpreted not as definitive outcomes but as emergent trends that necessitate further investigation. This is primarily due to the limited sample sizes and uneven distribution of the groups studied.

The following limitations must be taken into account when evaluating the findings:

1. The study was conducted with 140 participants in Muş province; therefore, the findings cannot be generalised to all pharmacists and pharmacy employees.
2. It is important to note that, due to the nature of the design, which is cross-sectional in essence, any relationships observed cannot be interpreted as causal.
3. As the data were collected through self-report, common-method variance may have inflated the observed associations between perceived stress and emotional exhaustion.
4. The reliability of the workload and skill utilisation sub-dimensions is low.
5. It is important to note that certain group comparisons, such as those pertaining to income and the factors influencing professional choice, are based on very small subgroups and are exploratory in nature.
6. The construct validity of the scales in this sample was not tested with confirmatory factor analysis.

7. The gender distribution of the sample is imbalanced (82.9% male), which limits the power of gender comparisons.

SUGGESTIONS

1. It is evident that social support is the most significant protective resource against burnout. Therefore, it is imperative that practices are developed which will strengthen supervisor and employee support, and increase intra-team communication and solidarity in pharmacies.
2. The present study hypothesises that the association between working nine hours or more per day and burnout, as well as job stress, necessitates the implementation of regulations regarding the organisation of working hours and the augmentation of rest periods.
3. It is recommended that practices which facilitate increased participation in decision-making processes by employees, as well as greater utilisation of skills and control over their work, be supported.
4. In light of the established correlation between economic dissatisfaction and emotional exhaustion, the efficacy of any enhancements to wages and personal rights should be rigorously evaluated.
5. The exploratory findings regarding income and the factors in choosing the profession should be retested in different provinces with larger, balanced, and highly representative samples, and with longitudinal designs.

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CONTRIBUTION RATE	CONTRIBUTORS
Idea or Notion	HKK, NK
Literature Review	HKK
Method	HKK
Data Collecting	HKK, NK, SM
Data Analysis	HKK
Findings	HKK, NK, SM
Discussion and Commentary	HKK

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