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Impact of job satisfaction on teacher well-being and education quality

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ABSTRACT

The occupational well-being of teachers and their job satisfaction are interconnected, both influencing teacher performance and student well-being. After several years of ongoing economic and financial crises, this cross-sectional descriptive study highlighted several factors that impact the quality of education in relation to these concepts. To achieve this, a scale created through principal component analysis was distributed online. The responses of 297 school teachers, from both the public and private sectors were subjected to analysis using descriptive and logistic regression tests. The findings revealed a strong sense of self-efficacy among teachers, indicating their dedication to providing quality instruction to students on the one hand and helping them overcome challenges on the other. Additionally, the factor of income and financial security emerged as the primary concern for teachers, with approximately 80% of respondents expressing this sentiment. Similarly, collegiality, working conditions, and attitudes towards teaching itself were also sources of concern.

Keywords: job satisfaction, resilience, self-efficacy, collegiality, working conditions, financial security

INTRODUCTION

Teachers are recognized as a crucial pillar in the educational system and their well-being and performance significantly impact the entire school system. Hence, it is imperative to investigate the factors that can influence teachers' performance by measuring teacher job satisfaction, particularly during times of crisis.

Indeed, teacher job satisfaction has received significant attention, and various factors that may have an impact, such as school principal leadership, workload, and school physical conditions, have been extensively studied (Ingersoll, 2001; Kraft et al., 2016). These factors have been thoroughly examined due to their correlation with teacher turnover, which is considered a global issue.

Studies have revealed that teachers with low job satisfaction experience negative emotions such as anxiety, depression, and insecurity, which are significant predictors of teachers leaving the profession (Konert, 1998).

It is widely recognized that teacher job satisfaction plays a crucial role in determining educational outcomes, including student enrollment and achievement (Asif et al., 2016). Caprara et al. (2003) reported that teachers with high levels of job satisfaction tend to exert greater effort when working with students.

Therefore, within the context of a country facing a severe economic and financial crisis, the authors aimed to examine the factors that might impact job satisfaction of Lebanese teachers.

Therefore, this cross-sectional study can be considered a situational analysis conducted during a critical economic crisis that began in late 2019 (Hammoud & Shuayb, 2022; Hammoud et al., 2021; Paccalin, 2021). During this period, public school teachers went on strike for several months to advocate for improved salaries, which reached $100 per month after 20 years of service for high school teachers (Abdallah, 2023; Bazzi, 2022; Khurma, 2023). This situation also prevailed in the private sector.

In this study, the authors aim to investigate the specific aspects of job satisfaction that have been most affected. As such, factors such as self-efficacy, collegiality, working conditions, income and financial security, the nature of the work, job security, workload, and recognition have been thoroughly measured using a scale specifically developed for this research.

Hence, investigating teacher job satisfaction is a crucial objective for gaining an indirect yet comprehensive insight into both teachers' resilience and performance on one side, and the quality of education and students' learning on the other side.

LITERATURE REVIEW

From the various definitions found in the literature (Kaur & Kumar, 2008; Spector, 2022; Weiss, 2002), job satisfaction could be considered as a collection of emotions, motivations, and feelings resulting from job performance and reflected in an individual's attitude towards activities, people, and things. Therefore, job satisfaction represents the level of pleasure and positive feelings experienced at work (Basaran, 2000).

In this study, job satisfaction was assessed by the extent to which teachers feel satisfied and fulfilled by the intrinsic and extrinsic benefits provided by their job.

The authors adopted the facet approach, which is used by most researchers for measuring job satisfaction (Smith et al., 1969; Weiss et al., 1967). The theories suggest that teaching satisfaction is a result of the accumulation of pleasurable and unpleasurable experiences and moments (Ho & Au, 2006).

The study by Bellott and Tutor (1990) found that 30,000 participating teachers were influenced by both motivation and hygiene factors, challenging Herzberg's belief that hygiene factors do not motivate. Herzberg (Kurt, 2021) classified hygiene factors as interpersonal relations, working conditions, and salary, while motivators or satisfiers encompass achievement, recognition, the work itself, responsibility, and advancement.

The results of the Tennessee career ladder program survey (Tutor, 1986) revealed that teachers perceived salary increases to be associated with achievement and other motivational factors.

Furthermore, according to Maslow's hierarchy of needs (Kurt, 2020), basic survival needs like physiological and safety needs form the foundation of the pyramid. People must have their current needs met before pursuing higher-level needs in the hierarchy (Gawel, 2019).

In Lebanon, teachers' main concern is meeting their basic needs, as indicated by Hammoud and Shuayb's (2022) study. Hammoud and Shuayb's (2022) study found that 66% of teachers had to take on second jobs to cover living expenses, and around two-thirds had to borrow money for essential needs and bills. The study, which surveyed 1,512 teachers from public and private schools, also revealed that the monthly teaching salary barely covers commuting expenses due to currency devaluation. Additionally, 73% of teachers expressed their intention to leave the teaching profession, with three-quarters planning to leave Lebanon.

Therefore, given that salary is frequently mentioned as a key factor contributing to leaving the teaching profession (Ingersoll, 2001), teacher turnover emerged as a substantial concern in Lebanon. According to the president of the secondary teachers league, 2,000 out of 7,000 teachers have left the profession, either temporarily or permanently (Bazzi, 2022). This turnover, particularly among qualified teachers, can lead to migration and attrition, ultimately affecting overall school performance, as highlighted by Ingersoll (2001) and Ronfeldt et al. (2013).

Living in such challenging conditions, teacher well-being would be a significant aspect to consider as it has also impact on student well-being. Studies showed that teachers who were content in their jobs were less prone to stress and burnout and their students feel better (Collie et al., 2012; Skaalvik & Skaalvik, 2011).

In summary, job satisfaction among teachers is linked to a strong commitment to their work and a focus on providing high-quality support for students' learning and academic success (Klusmann et al., 2008; Kunter et al., 2013). Research also suggests that satisfied teachers maintain their commitment even in times of high teacher turnover (Blömeke et al., 2017; Klassen & Chiu, 2011). Given the challenging circumstances faced by Lebanese teachers since late 2019 (Paccalin, 2021), this paper aims to investigate their job satisfaction during this period and its impact on their performance and resilience in schools.

The authors aim to highlight the significant impact of teacher dissatisfaction on education quality and students' performance. They use the Facet approach to investigate various factors specific to the Lebanese context that they believe strongly influence teachers.

The purpose of this study is to address the following research questions:

1. What is the primary goal that teachers are striving to achieve during an economic and financial crisis? How do factors such as age and school type affect teachers' occupational goals?
2. How do teachers rank the level of agreement on factors such as self-efficacy, collegiality, working conditions, income and financial security, work itself and job security, workload, and recognition?
3. How do teachers' age, school type, and current occupational goals influence their rankings of job satisfaction factors?

MATERIALS & METHODS

Structure Design

This cross-sectional descriptive study was conducted during an ongoing economic crisis to evaluate the potential influences of various factors on teacher job satisfaction. To fulfill this objective, a questionnaire with a measurement scale was developed, and its reliability and validity were validated.

Sample

The population of interest for this study comprised K-12 school teachers in both public and private sectors. The authors distributed the questionnaire randomly to school teachers through social media platforms such as Telegram and WhatsApp, specifically tailored for teachers. A total of 297 responses were collected for analysis.

Questionnaire

The questionnaire distribution aimed to increase response rates among teachers by using their native language, Arabic. It was initially created in English and then translated to Arabic to ensure cultural relevance, with back-translation to confirm accuracy. The Arabic version's face and content validity were assessed by three university professors and refined based on feedback from a pilot sample of 10 teachers to ensure the questions effectively measured the intended constructs.

In the introduction, the authors explained that the questionnaire study's objective was to assess teachers' job satisfaction. Respondents were assured that the collected data would be used solely for research purposes, and the study's definition of job satisfaction was provided.

The questionnaire had two sections. The first section gathered background information about the teachers, including gender, age, school type (public or private), years of teaching experience, grade level taught, average class size, average number of teaching sessions per week, and the number of family members dependent on their financial support. The second section comprised Question Q1, which focused on the teachers' current goals, and Question Q2 consisted of a scale of items that focused on the extent to which certain factors impact the teachers.

Description of the scale for question Q_2

In response to the crisis situation that may affect teacher job satisfaction, the authors developed a scale comprising 48 items that were rated on a scale ranging from one (strongly disagree) to five (strongly agree).

Many of the items were selected from the teacher job satisfaction questionnaire, designed by Lester (1982, 1987), Spector (1994, 1985) survey, and teaching and learning international survey (TALIS) 2018 (Sims & Jerrim, 2020) with necessary modifications made to align them with the educational system and context of Lebanon. Additional items were created by the authors to address specific problems faced by Lebanese schools. After data collection, the inter-item correlation matrix of the scale was subjected to factor analysis.

Principal component analysis

Kaiser-Meyer-Olkin (KMO) test and the X^2 Bartlett test of sphericity were calculated to examine the sampling adequacy and strength of correlations between items, respectively. KMO test had a value of 0.878, which is higher than 0.500. This indicates that the sample size is adequate and suitable for factor analysis (Hair et al., 2010; Lebart et al., 2006; Pallant, 2007). Furthermore, for Bartlett's test, the value of approximated Chi-square was 6,104.951 with df=1,128 and p<.001. This result rejected the null hypothesis that the correlation matrix was an identity matrix and provided evidence of a significant correlation between the items (Larose, 2006). Principal component analysis was applied as the extraction method and the number of factors or components to be extracted was determined by inspecting the scree plot of the eigenvalues and by running a parallel analysis (O'Connor, 2000). By applying a promax rotation method with Kaiser normalization and selecting the factorial loads greater than 0.400 (Shrestha, 2021), seven factors were obtained, as follows: factor 1-self-efficacy (15 items); factor 2-collegiality (eight items); factor 3-working conditions (10 items); factor 4-income and financial security (five items); factor 5-work itself and job security (six items); factor 6-workload (two items), and factor 7-recognition (two items).

Table 1 presents these factors with their corresponding items and the factor loads. Each component (factor) explained 21.264%, 10.060%, 5.407%, 5.022%, 4.283%, 3.369%, and 2.781% of the variance, respectively. Together, these components accounted for 52.188% of the cumulative variance.

Table 1. List of items for each factor along with their acronym & loading factor

Subscale	Items	Acronym	LF
F1 (15 items) Self-efficacy	Despite the country's *difficult situation*, I continue to encourage my students to appreciate the value of learning.	SE1	.815
	Despite the country's *difficult situation*, I continue to develop my students' critical thinking abilities.	SE2	.797
	Despite the country's *difficult situation*, I continue to help my struggling students to progress in their learning.	SE3	.793
	I do have responsibility for my teaching.	SE4	.771
	Despite the country's *difficult situation*, I continue to encourage my students to learn my materials.	SE5	.768
	I get along well with my students.	SE6	.746
	Despite country's *difficult situation*, I continue to adapt my teaching methods to attract students' interest in learning.	SE7	.731
	The material I teach is related to the daily life of students.	SE8	.672
	I am proud of the work I do.	SE9	.666
	Teaching provides me with an opportunity to help my students learn.	SE10	.635
	The salary I am receiving is less than what I deserve.	SE11	.584
	I am trying to be aware of the system and the rules of work in my institution.	SE12	.563
	I am responsible for planning my daily lessons.	SE13	.524
	I share with my colleagues the experiences I have learned in teaching.	SE14	.513
	My students respect me as a teacher.	SE15	.484

Table 1 (Continued). List of items for each factor along with their acronym & loading factor

Subscale	Items	Acronym	LF
F2 (8 items) Collegiality	I collaborate with my colleagues in planning and preparing instructional materials.	CO1	.805
	I work with my colleagues to try out new ideas.	CO2	.797
	My colleagues provide me with suggestions or feedback about my teaching.	CO3	.687
	My colleagues stimulate me to do better work.	CO4	.667
	I work with colleagues in other cycles to ensure a smooth progression in learning.	CO5	.635
	My interests are similar to those of my colleagues.	CO6	.603
	The rules of my institution are consistently and fairly applied.	CO7	.552
	I discuss with my colleagues how to teach a specific topic.	CO8	.541
F3 (10 items) Working conditions	In my institution, teachers have adequate technological resources.	WO1	.830
	In my institution, teachers have adequate support for using technology.	WO2	.727
	In my institution, teachers have adequate instructional materials and supplies.	WO3	.719
	In my institution, the classrooms need maintenance work.	WO4	-.664
	Clean water and proper sewage facilities are available at my institution.	WO5	.602
	Electricity is available at my institution.	WO6	.565
	In my institution, the building infrastructure is safe	WO7	.561
	My institution provides parking spaces for teachers to park their cars.	WO8	.520
	There is a heating system in my institution during the winter.	WO9	.507
	In my institution, teachers have adequate workspace.	WO10	.439
F4 (5 items) Income & financial security	Teaching provides me with financial security.	FS1	.776
	I receive a good salary that matches my academic and educational qualifications.	FS2	.730
	My salary from teaching is sufficient for me to live reasonably	FS3	.711
	Teaching provides me with a secure future.	FS4	.669
	The salary I receive from teaching is equivalent to the salaries of other jobs in Lebanon	FS5	.619
F5 (6 items) Nature of work itself & job security	Teaching does not provide me with the opportunity to develop new teaching methods.	WS1	.733
	Teaching discourages originality.	WS2	.664
	Teaching is not an interested job.	WS3	.661
	I do not feel secure in my teaching job.	WS4	.514
	Teaching encourages me to be creative.	WS5	-.456
	Teaching provides me with limited opportunities for professional advancement.	WS6	.453
F 6 (2 items) Workload	I need more time to prepare for class.	WL1	.764
	The number of weekly teaching sessions is large.	WL2	.761
F7 (2 items) Recognition	No one tells me that I am a good teacher.	RE1	.696
	I receive little appreciation in my job as a teacher.	RE2	.693

Note. F: Factor & LF: Loading factor

Reliability & Validity

Internal consistency

The Cronbach internal-consistency (alpha) coefficient was .816 for the questionnaire and .856 for the scale. To test the reliability of each factor in the scale, the Cronbach internal-consistency, the inter-item correlations and the corrected item-total correlations were calculated, as shown in **Table 2**.

The Cronbach's alpha coefficients for each factor solution were .915, .845, .757, .750, .430, .552, and .479, respectively. Although factor 5 (WS), factor 6 (WL), and factor 7 (RE) obtained low Cronbach's alpha values, their items were retained for the sake of content validity. These factors represent unidimensional scales with a small number of items (Loewenthal, 2001; Sijtsma, 2009). The low Cronbach's alpha values may be attributed to differences in the dispersion of responses to items in these factors. The tendency of individuals to answer toward the extremes can reduce the spread of responses on each factor item, resulting in lower item correlations and consequently yielding a lower Cronbach's alpha (Iacobucci, 2001).

Item analysis

The corrected item-to-total correlations for most items in the different factors (**Table 2**) were >0.200, ranging from .275 to .760. These values indicate that each item was positively correlated with the factor it belongs to (Kline, 1993). However, the two items, WO4 and WS5 have values (-.404) and (-.384), respectively. These items with also negative factor loadings (-.664 and -.456) were retained since deleting them did not affect the Cronbach's alpha (Nunnally & Bernstein, 1994). Additionally, the inter-item correlations were within the acceptable range of <0.800 (Nunnally & Bernstein, 1994).

Content validity

The content validity index (Davis, 1992; Polit et al., 2007) is used to support the validity of an assessment tool. A rating scale of one to four, indicating the degree of relevance, was used to score individual items. The item-level content validity index (I-CVI) is calculated as the proportion of content experts rating an item as three or four in terms of relevance. I-CVI for each item ranged from 0.788 to one, which aligns with the critical value used to determine content validity (Ayre & Scally, 2014). The scale content validity index (S-CVI/Ave), which is the average of I-CVI scores for all items on the scale, was 0.970 for the overall scale.

Table 2. Descriptive statistics & reliability analysis for each job satisfaction factor

F	Items	Mean	SD	Item means (mean)	Inter-item correlation (mean)	Cronbach's alpha	Corrected item-total correlation
F1	SE1	4.141	.780	4.092	0.430	0.915	.745
	SE2	4.077	.733				.733
	SE3	4.259	.751				.760
	SE4	4.249	.761				.742
	SE5	4.155	.887				.657
	SE6	4.229	.669				.717
	SE7	4.081	.842				.648
	SE8	3.939	.883				.600
	SE9	3.943	.889				.610
	SE10	3.923	.899				.618
	SE11	4.256	.994				.467
	SE12	3.980	.788				.579
	SE13	4.098	.889				.488
	SE14	4.000	.846				.583
	SE15	4.047	.800				.448
F2	CO1	3.465	.965	3.282	0.256	0.845	.669
	CO2	3.391	.977				.682
	CO3	2.731	1.034				.576
	CO4	3.098	.980				.592
	CO5	3.219	1.063				.523
	CO6	3.384	.878				.519
	CO7	3.313	1.026				.565
	CO8	3.660	.960				.522
F3	WO1	2.983	1.067	3.174	0.234	0.757	.653
	WO2	2.949	1.118				.635
	WO3	2.896	1.159				.628
	WO4	2.983	1.067				-.404
	WO5	3.582	1.112				.540
	WO6	3.246	1.329				.537
	WO7	3.532	1.151				.442
	WO8	3.508	1.290				.413
	WO9	2.653	1.283				.449
	WO10	3.411	.941				.426
F4	FS1	1.667	.874	1.690	0.380	0.750	.604
	FS2	1.579	.847				.565
	FS3	1.542	.779				.513
	FS4	1.859	.948				.509
	FS5	1.805	.942				.405
F5	WS1	2.657	1.116	2.779	0.099	0.430	.388
	WS2	2.569	1.107				.342
	WS3	1.906	.996				.347
	WS4	3.081	1.308				.392
	WS5	3.327	1.002				-.384
	WS6	3.135	1.047				.275
F6	WL1	2.838	1.091	2.946	0.382	0.552	.382
	WL2	3.054	1.141				.382
F7	RE1	2.064	1.150	2.424	0.316	0.479	.316
	RE2	2.84	1.091				.316

Note. F: Factor & SD: Standard deviation

Convergent validity

Convergent validity is used to assess the degree of correlation among multiple indicators of the same construct that agree. To determine convergent validity, factor loadings of the items, composite reliability (CR), and average variance extracted (AVE) need to be calculated (Hair et al., 2014). According to Hair et al. (1998), AVE and CR values should exceed 0.500 and 0.700, respectively. If AVE is less than 0.500 but the CR is higher than 0.600, the convergent validity of the construct is still considered adequate, as suggested by Fornell and Larcker (1981).

AVE and CR values for the factors are, as follows: SE (AVE=0.460, CR=0.930), CO (AVE=0.450, CR=0.860), WO (AVE=0.390, CR=0.790), FS (AVE=0.490, CR=0.830), WS (AVE=0.320, CR=0.680), WL (AVE=0.580, CR=0.730), and RE (AVE=0.480, CR=0.650). These results confirm the convergent validity of the construct.

Data Analysis

Dummy variables were created for variables such as teachers' age, school type, and items of Q_1 to obtain nominal dichotomous variables. Subsequently, frequency tables and percentages were calculated, along with cross-tabulations. Binary logistic regression was conducted for each item of Q_1 as the dependent variable, considering independent variables such as teachers' age

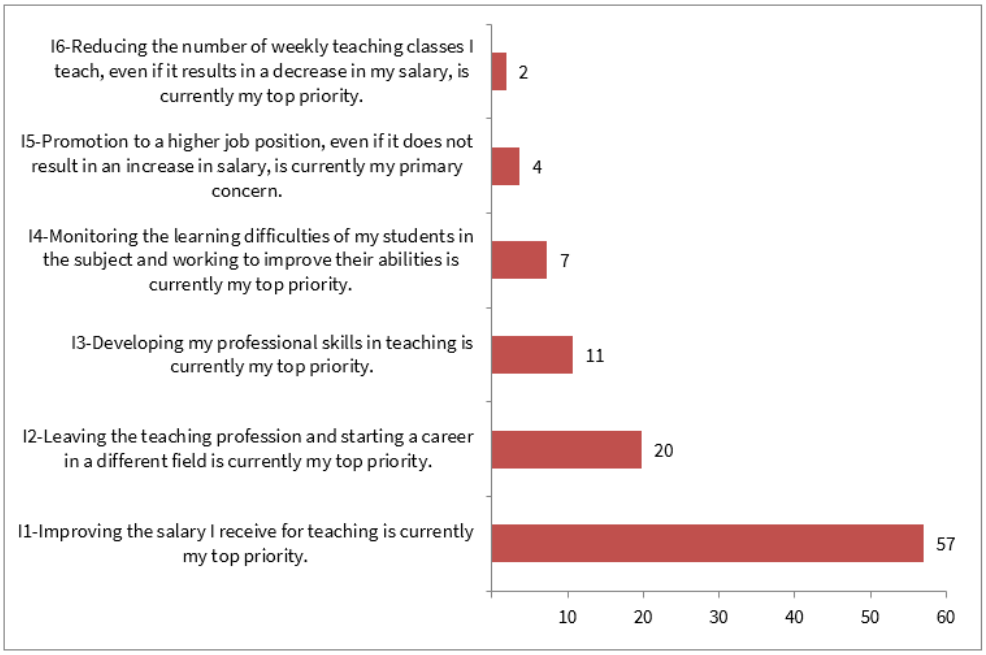

Figure 1. Distribution of teachers' responses based on their current goals during an economic crisis (Source: Authors' own elaboration)

and type of school. Furthermore, ordinal regression analysis was employed to determine the impact of independent variables (teachers' age, type of school and items of Q_1) on the rating for each item factor as the dependent factor. Additionally, Chi-squared tests were performed to determine statistically differences among categories. All descriptive and inferential analyses were carried out using SPSS (version 22).

RESULTS

Section 1 of the questionnaire aims to gather demographic information and profile data from the respondents, and the results are presented. The sample (n=297) consisted of K-12 teachers of which 74% were female. Around 73% of the teachers were between 31 to 55 years old, and around 82% had between six to 25 years of teaching experience. The majority of teachers were from the public sector (63%). Furthermore, 86% of the sample consisted of respondents who teach at the secondary stage (grade 10 to grade 12) and cycle III (grade 7 to grade 9), while approximately 75% taught scientific subjects such as biology, chemistry, mathematics, and physics. The sample was representative, as the schools, where the respondents teach span across all eight governorates in Lebanon, with a notable underrepresentation in the Akkar region. Additionally, information about the teacher workload was collected, such as the average number of teaching sessions per week and the average number of students per class. The researchers also gathered data on the socio-economic status of the respondents by collecting information on the number of individuals who rely on them financially.

Q_1 of section 2 asked the respondents about the goal they are currently working towards during the economic crisis situation. They have to choose one answer from a list of six options.

The results presented in **Figure 1** indicated that 57% of teachers are affected by the low salary, as evidenced by their selection of item I_1 in Q_1. The majority of these teachers fell into the age groups of 31-40 and 41-50. These teachers' categories accounted for 73% of the sample study and 61% of the teachers' population in 2021-2022 (CERD, 2022).

Furthermore, Chi-squared test results demonstrated a significant and positive correlation between the variable (I_1) and teachers aged 31-40 (X^2[df=1]=4.121; p=.042) as well as those aged 41-50 (X^2[df=1]=5.743; p=.017), with contingency coefficients of .117 and .138, respectively.

Moreover, 20% of teachers appear to be more vulnerable to the situation and less resilient, which could potentially drive them to leave the teaching profession and pursue a new career.

The majority of teachers who opted to enhance their professional skills and monitor students' learning difficulties to improve their achievements (I_3 and I_4) were observed among teachers aged 20 to 30. Furthermore, a moderate relationship with a contingency coefficient of .286 was found between I_3 and teachers in this age category (X^2[df=1]=26.474; p<.001).

The results of binary logistic regression for item (I_1) of Q_1 showed that the Omnibus tests of model coefficients indicated a good fit (p=.020), as well as the Hosmer and Lemeshow test (p>.050). The Nagelkerke R^2 indicated that 4.400% of the variance in the criterion variable can be explained by the predictor variables in the model. The classification table indicated that the model correctly classified 59.900% of cases overall (percentage accuracy in classification [PAC]). The test results revealed that the odds of an older teacher selecting item (I_1) as a top priority are 1.356 times higher than those of younger teachers, with a 95% confidence interval (CI) of 1.036 to 1.775. As age increases, the likelihood of selecting item (I_1) also increases.

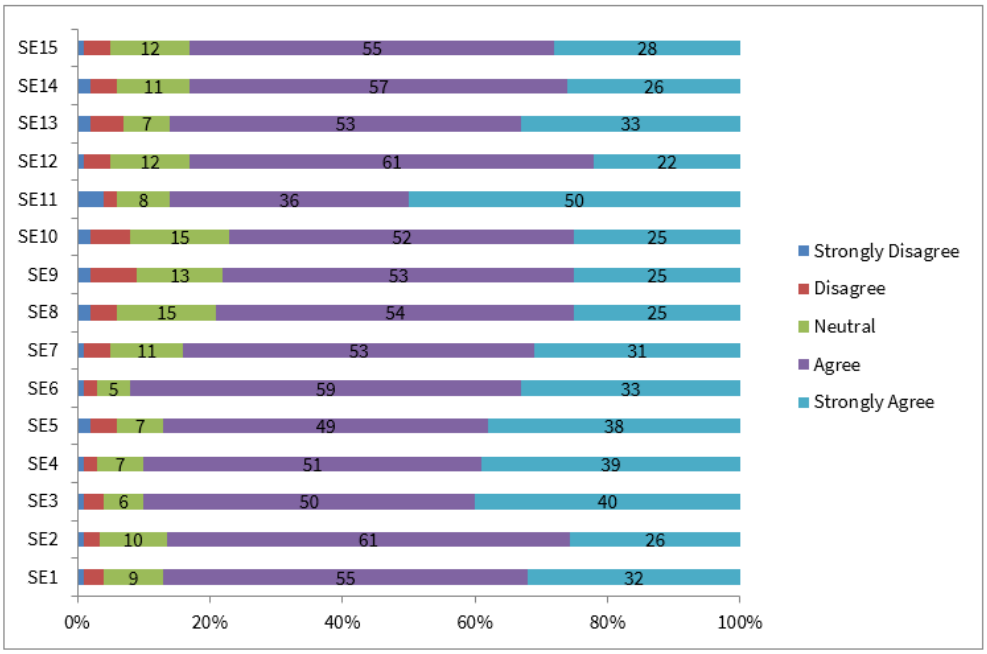

Figure 2. High level of self-efficacy ranked by teachers (Source: Authors' own elaboration)

For item (I_3) of Q_1, the results of the Omnibus tests of model coefficients ($p<.001$) and the Hosmer and Lemeshow test ($X^2[8]=14.227$, $p=.076$) indicated a significant improvement in fit compared to the null model. The Nagelkerke R^2 suggested that 11.700% of the variance in the criterion variable can be explained by the predictor variables in the model, and PAC was 88.600%.

The results showed that the odds of an older teacher choosing to develop their professional skills as their top priority is 0.511 times lower than that of younger teachers, with a 95% CI of .321 to .813. As age increases, the likelihood of selecting item (I_3) decreases.

Furthermore, the odds of a teacher in the private sector choosing item (I_3) is 2.313 times higher than that of teachers in the public sector, with a 95% CI of 1.095 to 4.884.

Q_2 of the questionnaire consisted of a scale, where teachers ranked the level of various items that may affect their job satisfaction on a 5-point Likert scale. Moreover, an ordinal logistic regression was performed to evaluate the relationship between ranking level of scale items and variables such as school type, teachers' age and their current goal (items of Q_1). The statistically significant relationships between these variables are summarized.

The results illustrated in **Figure 2** indicate that the majority of teachers expressed agreement or strong agreement with all 15 items within the self-efficacy factor (SE). Additionally, no statistically significant differences were observed in teachers' responses based on variables such as age, school type, and primary goal (Q_1). As a result, teachers continue to encourage their students to value learning (SE1), foster their critical thinking skills (SE2) and motivate them to engage with course materials (SE5). These efforts are correlated with teachers adapting their teaching methods to stimulate students' interest in learning (SE7) and make the course materials relevant to their daily lives (SE8).

Furthermore, 78% of teachers displayed a profound sense of pride (SE9). This may consequently prompt them to wholeheartedly embrace their responsibility to ensure the success of their students. Moreover, the average value of each item consistently hovered around 4, yielding an overall item mean of 4.092. This suggests a consensus within this factor on the scoring scale. Consequently, the self-efficacy items reflecting teachers' dedication and commitment to their teaching appear unaffected by the low salaries teachers receive (SE11), attributed to the devaluation of the country's currency.

The overall item mean of the collegiality factor is 3.282 (**Table 2**), signifying that teachers' level of agreement falls within the neutral category on the scoring scale. This is depicted in **Figure 3**, where a significant percentage of teachers responded neutrally to specific items.

The teachers showed lower levels of agreement, particularly in providing feedback to each other about teaching (CO3), stimulating each other to improve (CO4), and collaborating with teachers from other cycles (CO5). However, teachers demonstrated collaboration among themselves, with 69% agreeing with item (CO8), followed by 57% for item (CO1), and 52% for item (CO2), and item (CO6). Furthermore, only 48% of teachers agreed that institutional rules were applied fairly (CO7). The results of ordinal regression indicated that public school teachers have odds 0.490, 0.561, 0.404, and 0.458 times lower than their private sector counterparts to rank higher for items CO1, CO3, CO4, and CO5, respectively.

Regarding the working conditions factor (WO), the level of agreement among teachers was below 50% for the availability of instructional materials, digital resources, and other teaching supplies, as well as support for using technology (WO1, WO2, WO3) as depicted in **Figure 4**.

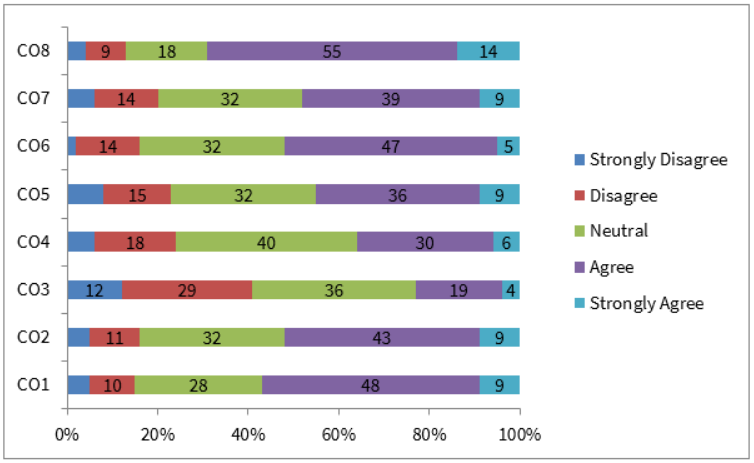

Figure 3. Low ranking level of collegiality based on teachers' perspectives (Source: Authors' own elaboration)

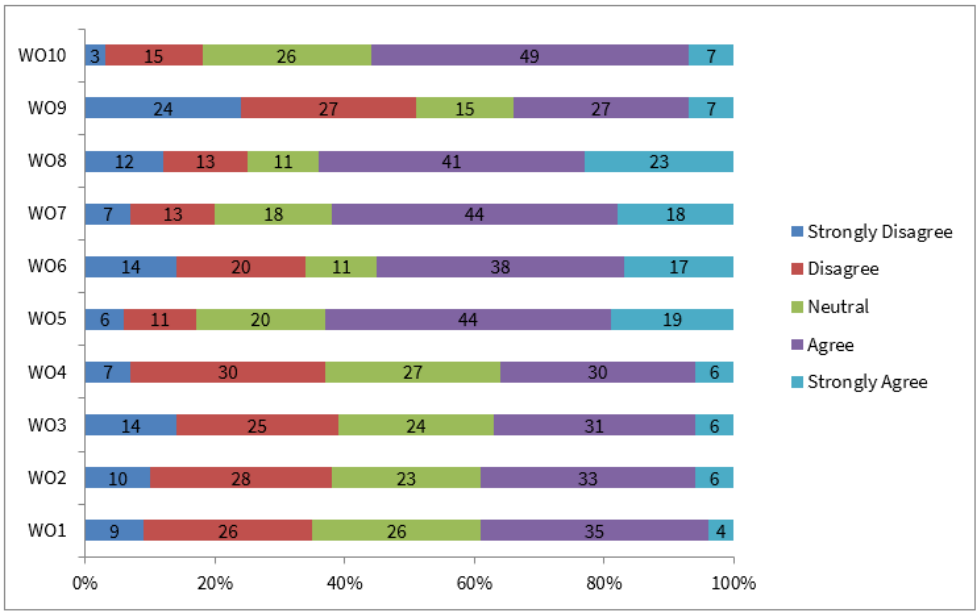

Figure 4. Rank of working conditions based on teachers' perspectives (Source: Authors' own elaboration)

The percentage of agreement decreases to 36% for item (WO4) and to 34% for item (WO9). For items related to availability of clean water and proper sewage facilities (WO5), safe building infrastructure (WO6), availability of electricity (WO7), availability of parking spaces (WO8), and having an adequate workplace (WO10), the level of agreement among teachers was moderately higher than 50%. Therefore, the teachers' responses to the items within the working conditions factor (WO) were not consistent, and the means of the items range from 2.653 to 3.582 (**Table 2**). This gives an overall item mean of 3.174, signifying that the level of agreement falls within the neutral category.

The results of ordinal regression showed that public school teachers have odds 0.475, 0.381, and 0.391 times lower, than their private sector counterparts to rank higher for items (WO1), (WO2), and (WO3), while they are 2.423 times more likely to rank higher for item (WO4).

Regarding the items related to the income and financial security factor (FS), the teachers expressed disagreement or strong disagreement at rates ranging from 77% to 92%, as depicted in **Figure 5**. Furthermore, as shown in **Table 2**, the item means within this factor range from 1.542 to 1.859, resulting in an overall item mean of 1.690.

Additionally, teachers in the public sector were more negatively affected by the economic crisis. This is evident from the results of the ordinal regression analysis involving items (FS1, FS2, FS3, and FS4) as dependent variables, with school type as a predictor. Consequently, negative regression coefficients of -1.124, -1.566, -0.568, and -0.525 ($p<0.050$) were obtained, indicating that teachers in public schools are 0.325, 0.209, 0.567, and 0.591 times less likely to choose the highest category level (agree and srongly agree) for these items, respectively, compared to their private sector counterparts. This trend is depicted in **Figure 6**.

Furthermore, the odds of receiving a higher ranking for FS1, FS2, and FS4 are, respectively, 3.235, 3.022, and 2.158 times greater for teachers who did not select (I_1) of Q_1 compared to those who have this concern.

Moreover, for teachers who did not select (I_2) of Q_1, the odds of receiving a higher ranking for FS1, FS2, FS3, and FS4 are respectively 3.888, 4.563, 2.378, and 3.792 times greater compared to those who plan to leave their profession entirely.

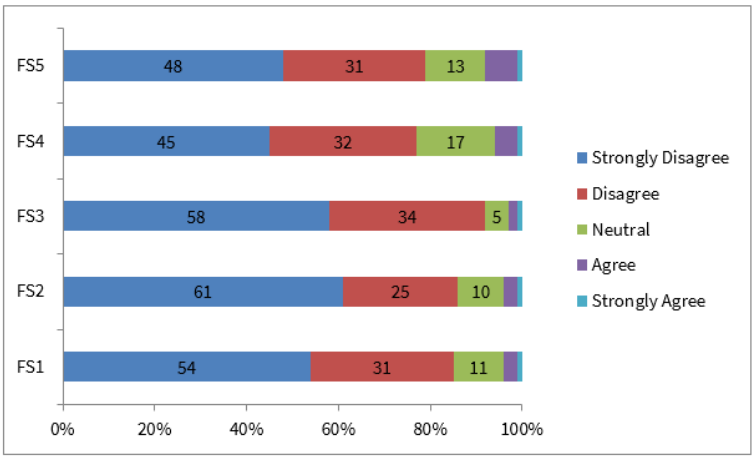

Figure 5. A high level of dissatisfaction in ranking income & financial security (Source: Authors' own elaboration)

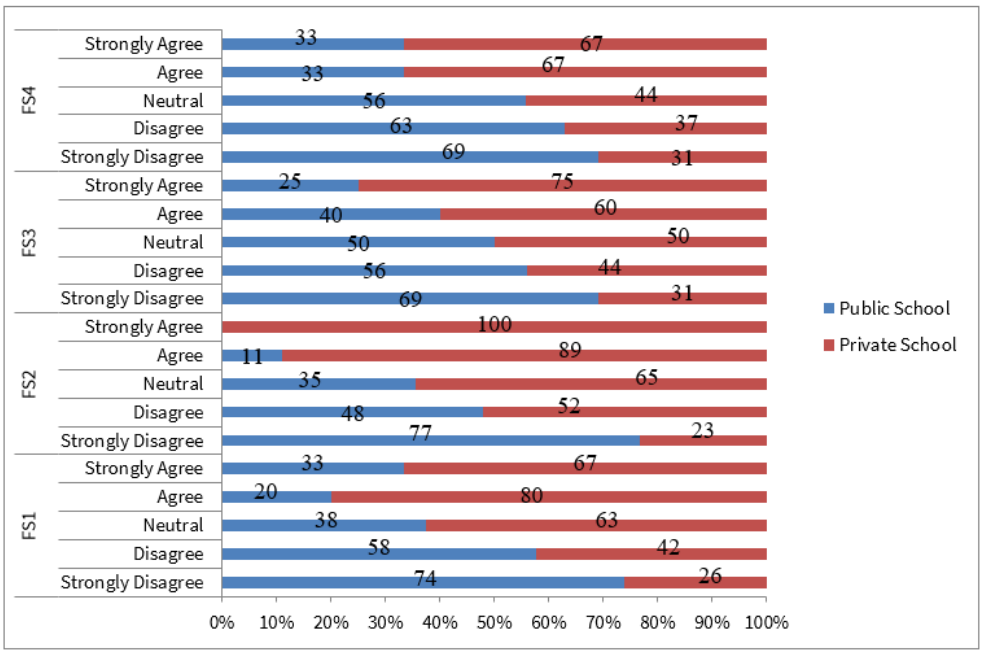

Figure 6. Ranking of income & financial security items among teachers in public & private sectors (Source: Authors' own elaboration)

Based on the results of both ordinal regression analyses, a plausible conclusion can be drawn: schoolteachers, particularly those who have established goals to enhance their professional skills (I_3 of Q_1), were more inclined to experience satisfaction with their income, thereby affording them financial security.

Lastly, teachers outside the age category range of 41-50 have 2.286 times higher odds of selecting a higher level on item (FS3), compared to teachers within this age category. A conclusion that can be drawn is that younger and less expertise teachers in the age categories of 20-30 and 31-40 were more inclined to accept a moderate lifestyle based on their teaching salary, in contrast to older and more experienced teachers.

Regarding the work itself and job security factor (WS), **Figure 7** illustrates that 51% of teachers disagreed with the statement that teaching does not offer opportunities to develop new teaching methods (WS1), 52% disagreed with the idea that teaching discourages originality (WS2), and 74% of teachers disagreed with the notion that teaching is not an interesting job (WS3).

The highest level of agreement, at 50%, was observed for item (WS5), followed by 42% for item (WS4), and item (WS6).

These items from WS1 to WS6 capture teachers' attitudes towards the teaching profession, with corresponding item mean values of 2.657, 2.569, 1.906, 3.081, 3.327, and 3.135, respectively (**Table 2**). This denotes a neutral level of agreement among teachers concerning the nature of teaching, except for WS3, which falls within the disagreement level (disagree=2 on the scoring scale). This implies that, according to teachers' viewpoints, the teaching profession remains an interesting occupation.

The results of the ordinal regression analysis for items (WS2) and (WS5), as dependent factors, with school types as the predictor factor were consistent. Teachers in public schools had 2.098 times higher odds of ranking higher in the perception that teaching discourages originality (WS2), whereas they had 0.619 times lower odds of ranking higher in the perception that teaching encourages creativity, in comparison to their counterparts in the private sector.

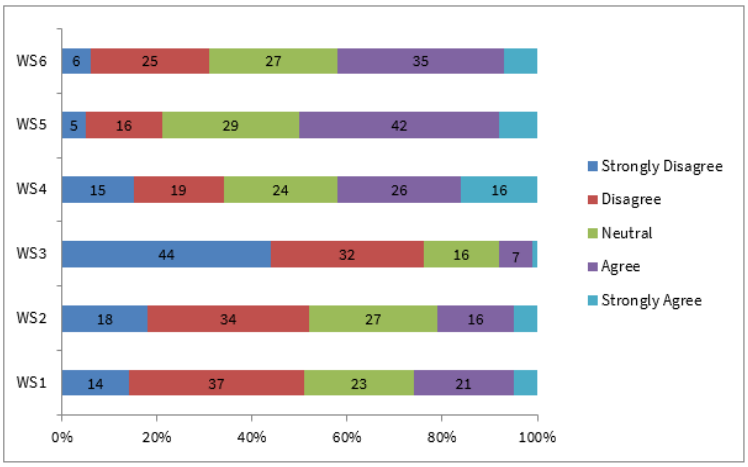

Figure 7. Ranking of work itself & job security based on teachers' perspectives (Source: Authors' own elaboration)

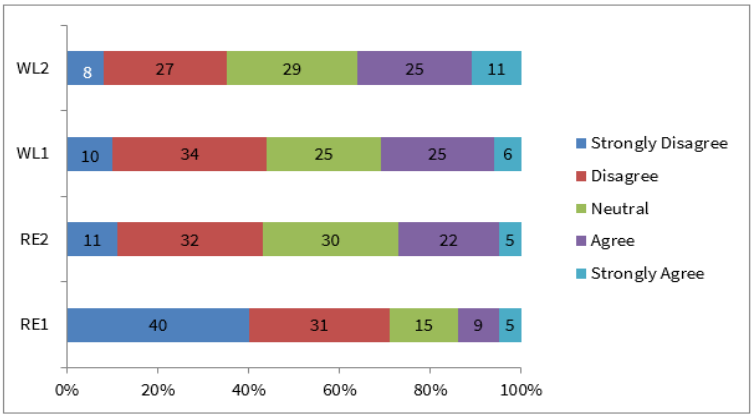

Figure 8. Ranking of recognition & workload factors by teachers (Source: Authors' own elaboration)

Furthermore, the odds of teachers, who selected (I_3) of Q_1, to choose a higher rank level on item (WS2) are 0.370 and 0.425 times lower, respectively, compared to those who prioritize improving their salary (I_1) or plan to leave the teaching profession (I_2).

The teachers' responses to the workload factor (WL) were divided into two groups. As depicted in **Figure 8**, 44% of teachers disagreed that they need more time to prepare for class (WL1), while 31% agreed. Additionally, an equal percentage of teachers (35%) expressed both agreement and disagreement regarding the high number of weekly teaching sessions (WL2).

The mean values for these items are 2.838 and 3.054, respectively, indicating a neutral level of agreement among teachers.

In relation to the recognition factor (RE), 71% of teachers disagreed with item (RE1) and 43% disagreed with item (RE2). Moreover, the mean values for these items are 2.064 and 2.84, respectively, resulting in an overall mean value of 2.424.

DISCUSSION

All agrees on the importance of teachers' role in the teaching and learning process either whether the approach is student-centered approach or another, the learning is occurred physically, blended or completely online. Hence, when the countries set out policies for enhancing the education level, teacher job satisfaction is one of the pillars that have to be addressed since the teacher wellbeing, resilience and performance will affect the quality of education, particularly students' academic achievement.

In fact, teachers' job satisfaction is highly correlated to many domains, and this refers to the absence of consensus on the number of factors that should contribute to teaching satisfaction from the researchers who used the facet approach. Hence, it is difficult to judge how many facets, and in what proportions, should represent the overall teaching satisfaction (Ho & Au, 2006).

Therefore, the purpose of this study was to evaluate teachers' job satisfaction by assessing specific factors that the authors deemed highly relevant within the Lebanese context. These factors include self-efficacy, collegiality, working conditions, income and financial security, the nature of work and job security, workload, and recognition.

On a scoring scale, where strongly disagree=1, disagree=2, neutral=3, agree=4, and strongly agree=5, the mean of each item as well as the overall item means of each factor were calculated (**Table 2**).

According to Bandura's (1997) social cognitive theory, self-efficacy beliefs play a crucial role in how individuals perceive and approach challenges, as well as how they cope with failures. In the context of teaching, international studies (Collie et al., 2012;

Klassen & Chiu, 2011; Skaalvik & Skaalvik, 2014) have reported that self-efficacy is a vital motivational belief that can help teachers navigate and mitigate the impact of stressful working conditions.

The dimension of teacher self-efficacy is defined according to three scales: efficacy in classroom management, efficacy in instruction, and efficacy in student engagement. There is a growing body of evidence suggesting that teachers' self-efficacy impacts their instructional practices, job satisfaction, enthusiasm, and commitment, leading to a positive relationship with higher student achievement (Mostafa & Pál, 2018; OECD, 2014; Opfer, 2016; Schleicher, 2018). The significant level of self-efficacy shown by the Lebanese teachers indicates a profound job commitment among teachers, implying their enduring belief in the efficacy of their actions to achieve desired outcomes.

Viac and Fraser (2020) introduced a framework to examine the influence of working conditions, both at the system and school levels, on teachers' well-being. Within this framework, the cognitive dimension is linked to teachers' self-efficacy, which is evaluated based on the quality of teaching, classroom processes, and indicators of students' well-being.

In addition to teacher performance, self-efficacy is also intricately connected with teacher resilience. Hence, despite acknowledging being underpaid, teachers demonstrated a robust sense of responsibility and cultivated strong relationships with students. This high self-efficacy empowers teachers to maintain resilience despite encountering low job satisfaction and confronting financial challenges resulting from their modest income.

In fact, a synergistic relationship exists among job satisfaction, self-efficacy, resilience, teacher performance, and students' achievements. They all collectively contribute to a dynamic educational ecosystem.

Teaching is defined not merely as an individual job; rather, teachers' relationships with others, such as students, colleagues, and parents, constitute the foundation of teachers' social capital, recognized as a fundamental element shaping teachers' professionalism (Hargreaves & Fullan, 2012). As a result, the frequencies of interactions with others and the quality of these relationships significantly influence teachers' well-being (Wang et al., 1997).

Indeed, the quality and depth of these social interactions with various stakeholders within the educational system contribute to the social well-being dimension of the teachers' occupational well-being framework (Viac & Fraser, 2020).

The studies conducted by Sims (2017) and Sims and Jerrim (2020) revealed a positive correlation between teacher job satisfaction and teacher cooperation. These studies examined the school learning environments and working conditions of teachers from TALIS (TALIS 2013 and 2018), conducted in 35 countries worldwide.

However, the teachers' level of agreement on the collegiality factor fell within the neutral category on the scoring scale. Additionally, a lower level of collegiality among teachers was observed in the public sector compared to their counterparts in the private sector. This highlights a critical issue if no action is taken, as establishing good relationships with colleagues is essential for the well-being of teachers working in a healthy relational environment.

In this study, the item factors related to collegiality primarily focused on interactions among colleagues. However, other aspects of this factor, including student misbehavior, parental concerns, and support or lack of support from school leadership, were not assessed by the authors. This decision was based on the potential impact it could have on response rates from teachers, which might decrease as a result of an increased number of survey items.

In the case of the working conditions factor (WO), teachers indicated a neutral level of agreement, with public school teachers displaying greater dissatisfaction. This is particularly notable in relation to the shortage of instructional materials, technological resources, and classroom maintenance.

International studies (Borman & Dowling, 2008; Ingersoll, 2017; Sutcher et al., 2016) indicated that dissatisfaction with the working environment was the primary reason for teacher turnover, alongside the declining prestige of the teaching profession. Indeed, evidence has demonstrated that a disagreeable physical environment such as inadequate thermal comfort, poor lighting, excessive noise exposure, unclean and malfunctioning windows, as well as dirty restrooms, is strongly linked to teacher burnout (Hakanen et al., 2006). Additionally, it is associated with low job satisfaction and an increased interest in leaving the job (Kristiansen et al., 2011).

The study's findings highlight the significance of working conditions as a vulnerable factor, particularly within the public sector. These conditions, when coupled with other dissatisfying factors like low income and financial insecurity, increase the likelihood of teachers contemplating turnover.

According to Borman and Dowling (2008), who examined 14 studies investigating the relationship between salary and teacher attrition, it was found that when teacher salaries are insufficient to maintain a reasonable standard of living, the attrition rate increases.

Moreover, a positive correlation has been identified between higher teacher salaries and performance on one hand (Britton & Propper, 2016), as well as student achievements on the other hand (Akiba et al., 2012; Hendricks, 2014).

In the Lebanese context, teachers have been underpaid due to the significant depreciation of the Lebanese currency (Lira), which lost around 90% of its value against the dollar. As a result, many teachers opted to exit the profession, while those who remained resilient within the teaching profession were all deeply concerned with increasing their income to meet their basic needs (Hammoud & Shuayb, 2022). This was evident from the substantial disagreement among teachers across all items within the income and financial security factor (FS). The severity of this crisis varies based on different teacher categories. In terms of school type, teachers in public schools were notably more vulnerable, particularly among those aged 41-50, who are consequently more qualified due to their extensive teaching experience. On the other hand, the category of teachers appearing least vulnerable consisted of younger teachers who aspire to enhance their professional skills.

While many teachers prioritize opportunities for professional growth within the teaching profession over solely focusing on salaries or other compensations, it remains crucial to regulate teaching salaries by establishing policies that determine working conditions at the educational system level. Therefore, a necessary step involves comparing teaching salaries with those of other comparable professions.

There is no doubt that one of the primary indicators of the quality of education depends on the quality of instruction that teachers offer to students. The expertise accumulated through years of teaching, aligned with receiving professional development and support, leads to the development of a workforce of qualified teachers in the subjects they teach. Continuous capacity building for teachers is necessary to ensure they stay updated with the best practices and trends in teaching and education in general. However, despite teachers being encouraged to attend workshops, obtain certifications, and participate in educational forums, their specific needs are not always considered for tailoring the training to meet those needs. Moreover, in contrast to other occupations, teaching is not often considered as a career development path in the same way as it is for employees in other industries. The results indicate that teachers' attitudes towards the teaching profession vary from low to neutral concerning professional development. However, teachers in public schools perceive teaching as discouraging creativity and originality more than their counterparts in private schools. This issue needs to be addressed, as the lack of opportunities for career advancement (Howes & Goodman-Delahunty, 2015; Kelly et al., 2019) increases the likelihood of teachers leaving the profession, particularly due to factors such as low salaries (Greiner & Smith, 2009; Harrell et al., 2004) and unsatisfactory working conditions (Donaldson & Johnson, 2010; Geiger & Pivovarova, 2018).

In terms of job security, the respondents' attitudes were neutral, and there is no significant statistical difference between the public and private sectors. Interestingly, despite holding negative attitudes, teaching has remained an intriguing profession for the majority of teachers. This underscores the importance of teachers' motivation in their profession, which significantly contributes to their resilience.

The workload and recognition factors were considered major reasons for teacher turnover. However, the findings for these two factors did not indicate a situation that requires considerable attention, even though only two items were allocated for each factor. Since the mean of items, except for RE1, fell into the neutral category, there is a need to assess different aspects of these factors in the future.

The results of RE1 suggest that teachers' roles are somewhat appreciated. Furthermore, when teachers perceive value in receiving recognition for their teaching efforts, it additionally enhances their process of building resilience.

Limitations of the Study

This study aimed to investigate how specific job satisfaction factors impact the performance of K-12 teachers in Lebanon during an economic crisis. However, certain factors, such as the leadership abilities of principals and gender, were not the primary focus. Additionally, given that the effects may manifest over several decades, a longitudinal study on teacher satisfaction could provide valuable insights.

The study's findings were based on a cross-sectional sample of 297 teachers from both private and public schools across all governorates. To enhance the study's validity, conducting a large-scale research effort is recommended. Furthermore, it's important to note that this study only examined a limited set of aspects related to teacher performance and job satisfaction and does not establish a cause-and-effect relationship.

Implications for Quality of Education

The literature has established a connection between job satisfaction and student achievement (Heller et al., 1992; Leslie, 1989), making teacher job satisfaction a crucial factor in educational outcomes, including enrollment and achievement. In Lebanon, despite ongoing crises, efforts to sustain the education system have mainly involved giving small salary increases to public school teachers to counter currency devaluation. Unfortunately, these measures have not succeeded, and teachers are still protesting due to difficulties in meeting their basic needs.

To address teacher shortages due to high turnover, contractual teachers, often recent graduates accepting low pay for experience, have been hired. This raises concerns about teaching quality and the long-term impact on education.

Hence, maintaining the current situation will inevitably lead to a continued increase in the attrition rate of teachers, resulting in significant long-term consequences. The authors emphasize this issue to urge policymakers to:

1. Listen to the voices of teachers in order to implement effective measures that enhance teachers' well-being and improve job satisfaction.
2. Initiate an urgent education plan aimed at mitigating the impact of the crisis on teachers and enhancing their resilience.
3. Prioritize addressing factors such as income, working conditions, and professional development.

CONCLUSIONS

This study examines teacher job satisfaction in the context of Lebanon's ongoing economic and financial crisis since 2019, a topic not previously addressed. A 48-item scale was developed to gauge teachers' levels of agreement regarding aspects like self-efficacy, collegiality, working conditions, financial security, nature of work, job security, workload, and recognition. The goal was to understand which elements of teachers' well-being have been most affected and what contributes to their resilience.

The study also explores the impact of teachers' performance on students' achievements, with self-efficacy as an indicator. Many teachers displayed high self-efficacy, enabling them to withstand the rising turnover rate within the teaching community. Dissatisfaction levels were generally low, especially concerning collegiality and working conditions, though more pronounced in the public sector. Income and financial security were the primary concerns, particularly driving teacher turnover, notably among qualified teachers aged 41-50.

The study identified negative attitudes among teachers toward the profession, mainly stemming from dissatisfaction with professional development opportunities. Despite their discontent across various factors, teachers still find teaching engaging and feel some appreciation and recognition. Failing to address this situation will result in increased turnover and attrition rates, particularly among highly qualified teachers, adversely affecting education quality in the long term.

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Ethical statement: The authors stated that the survey was conducted online and a clear statement regarding the survey's purpose was provided. The authors further stated that the study adheres to established ethical standards for online research. Privacy measures for the collected data were respected, and consents from participants were obtained before the survey was completed.

Declaration of interest: No conflict of interest is declared by authors.

Data sharing statement: Data supporting the findings and conclusions are available upon request from the corresponding author.

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