

CONSTRUCT VALIDITY AND METRIC CHARACTERISTICS OF THE INSTRUMENT FOR MEASURING WORK-FAMILY BALANCE

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Abstract

This study aims to assess the construct validity and metric characteristics of the instrument for measuring work-family balance among Albanian primary school teachers in the Republic of North Macedonia, using a non-experimental methodology and instrumental design. The study sample consists of a total of 137 teachers, of whom 34 are male and 104 are female, while 95 are from rural areas and 43 from urban areas. The concept of work-family balance is treated as an equal degree to which teachers engage in work and their family life.

In the construct validity procedure, only 26 questions were adapted to the final version from a total of 31 questions of the original questionnaire, while exploratory factor analysis grouped three factors that explain 66% of the variance, such as: time balance, involvement and satisfaction, as well as confirmatory analysis for the same factors explains the variance by 66%, while the Cronbach's Alpha reliability analysis resulted in high internal consistency for all factors and the instrument as a whole. The contribution of this study is in the fields of organizational psychology, educational psychology and psychometrics by providing appropriate dimensions of the instrument for measuring work-family balance among Albanian teachers in North Macedonia, and it also open a window for other researchers who will be interested in studying the same variables to evaluate the relevant scales with this instrument or to compare the data with another instrument for the same variables.

Keywords: Construct validity, metric characteristics, measurement instrument, work-family balance.

1. Introduction

Based on the non-experimental methodology, this study analyzed the work-family balance measurement instrument for Albanian teachers in primary education in North Macedonia, which was created by Dawn S. Carlson. D. S and Kacmar. K. M and Williams. L. J (2000), which measures work-life balance using Likert scales, from 1 - not at all to 5 - completely, with a total of 31.

Greenhaus and Allen (2006) defined work-family balance as “the degree to which an individual’s effectiveness and satisfaction in work and family roles are consistent with his/her life priorities”, while according to Marks and MacDermid (1996) this balance is divided into three indicators as “*time balance, involvement balance and satisfaction balance*”. In the construct validity analysis, all questions were changed and adapted based on the teachers’ understanding, while 4 of them were not at all understandable to the teachers in the “face validity” phase and were excluded from the instrument for the application phase, so from 31 questions it was reduced to 26 questions in the final version. Exploratory factor analysis revealed three factors that explained 66% of the variance, as well as confirmatory factor analysis, the grouped factors resulted to be the same as the factors of the original instrument, while the reliability analysis of the instrument for internal consistency showed that the instrument is reliable both in its factors in particular and as an instrument as a whole.

This study has particular importance in the fields of psychometrics, organizational psychology and educational psychology by adapting the instrument for measuring work-family balance for all primary school teachers in North Macedonia because to date there has been no standard and adapted instrument for the respective variable. From a practical point of view, the scientific

contributions of this paper will be, first of all, providing appropriate dimensions of the instrument for measuring work-family balance among Albanian teachers in North Macedonia, another important contribution is that it will provide educational policymakers and educational institutions themselves with an appropriate instrument for measuring this variable, and it will also open a window for other researchers who will be interested in studying the same variables to assess the respective scales with this instrument or to compare the data with another instrument for the same variables.

Overall, the purpose of this study is to adapt and create standard measurement characteristics of the instrument for measuring the degree of work-family balance among Albanian primary education teachers.

2. Theories on work-family balance and definition of variables

Greenhaus, Collins and Shaw (2003), relying on the theory of role balance (Marks and MacDermid, 1996, cited by: Carlson, D. and Grzywacz. G. J, 2007) and previous definitions (Clark, 2000; Kirchmeyer, 2000), defined work-family balance as *“the degree to which individuals are equally engaged and satisfied with work and family roles”*, they show that work-family balance is the degree to which a person or individual is equally engaged or devoted to and is equally satisfied with his/her work role and family role. In relation to the concept of Marks and MacDermid (1996) their definition is quite broad because it includes positive and negative balance, they divide role engagement into the following indicators:

- *Time balance*: the equal amount of time devoted to work and family roles.
- *Involvement balance*: equal level of involvement in work and family roles.
- *Balance of satisfaction*: equal level of satisfaction with work and family roles.

Voydanoff (2005) drew on the theory of person-environment fit and suggested that work-family balance is *“a global assessment that work resources meet family demands and family resources meet work demands so that participation is effective in both domains”*. Finally, Greenhaus and Allen (2006) defined work-family balance as *“the degree to which an individual’s effectiveness and satisfaction in work and family roles are consistent with his or her life priorities”*.

According to Carlson, D. and Grzywacz. G. J, (2007) Work-family balance is at the core of central issues for human resource development (Allen et al., 2000; Kossek and Ozeki, 1999). This evidence shows that, implicitly or explicitly, work-family balance is at the core of key functions and that it can be a powerful point for promoting individual and organizational effectiveness.

Work-family balance is the practice of creating a healthy balance between professional and family life (Mazerolle and Goodman, 2013, cited by: Aquino, Culajara and Culajara, 2023). This balance is important for maintaining physical and mental health, as well as relationships with family and friends. Meanwhile, family can be broadly defined as the degree of community and emotional connection that family members have towards each other (Vandeleur et al. 2009; cited by: Neziri. I and Kamberi. I. 2016). Some strategies that can help achieve work-family balance include setting boundaries between work and family life, setting aside time for work and family, taking regular walks during the day, and avoiding multitasking (Bartlett et al., 2021; Kossek et al., 2014, cited by: Aquino, Culajara and Culajara, 2023).

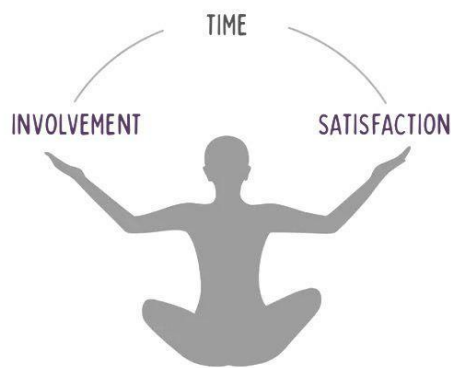


Figure 1. Work-family balance factors

2.1 Work-family time balance: According to Thornthwaite (2002), the balance of work and family time is very important, especially for employees who have parental status, to achieve this balance they undoubtedly express preferences regarding working hours. The main issue for this indicator is working hours and hours spent with other family members. Research in a wide range of countries has identified common themes and different preferences regarding each of these issues related to working time.

Schor, B. J in the book Drago, RW (2007) says that to achieve work-family time balance a married employee (in a family with two parents and children) who works an average of 40 hours per week together with his/her wife, this can be achieved if this working time is shared with his/her partner and instead of both working full-time, which will not allow them to have sufficient family time, as has become the norm nowadays, but the hours should be reduced, where from 40 hours per week for the husband and wife to 20 hours of work per week. This combination will allow them to have income (profits) as if one worked full-time. Benefits would be shared equally, with the exception of health insurance, which would be offered incompletely to both (parents), but ideally a national health system should offer solid health insurance even with this working schedule, to eliminate the discouragement faced by employers with short working hours.

2.2 Work-family balance: Based on boundary theory, which is concerned with the boundaries that separate time, places, and people associated with work versus family roles. Clark (2000) states that boundary theory refers to work-family balance, suggesting that work-family balance can be achieved in multiple ways depending on factors such as the similarity of the work-family domain and the strength of the boundaries between the domains (work-family).

In Parung, E. G and Ferreira, N. (2017) cross-cultural research on work-life balance, couple satisfaction and father involvement, it was shown that the level of father involvement varies by country, but in general, new fathers in all three countries, namely the United Kingdom, Indonesia and Hong Kong are focusing their involvement on providing financial support to the family and also giving importance to an active relationship with their children. “*Despite the limited number of studies linking marital satisfaction and work-family balance with father involvement, they found positive and promising results for increasing fathers’ participation in child-rearing activities*”. Although father involvement in the family is quite high in the West, Eastern society has not given much importance to this concept. The level of father involvement in Asia is still relatively lower than that of the mother (Juhari, Yaacob, and Talib, 2013, cited by: Parung, E. G and Ferreira, N, 2017).

2.3 Work-family balance of satisfaction: “Satisfaction with work-family balance is defined as individuals’ assessment of having sufficient resources to effectively respond to the demands of their work and family roles” (Valcour, 2007, cited by: Beham. B and Drobnič. S, 2010) as well as individuals’ affective responses to this assessment. This definition understands work-family balance satisfaction as a unitary, holistic construct that includes a cognitive and affective component. The cognitive component, which generally involves deciding whether an experience is positive, stressful, or irrelevant with respect to well-being (Lazarus and Folkman, 1984, cited by: Beham. B and Drobnič. S, 2010), consists of an assessment of a person’s ability to fulfill multiple work and family responsibilities. The affective component of satisfaction with work-family balance involves a positive feeling or emotional state as a result of this positive appraisal. Satisfaction with work-family balance is distinct from constructs that describe processes of transfer across domains such as work-family conflict, enrichment, or facilitation.

3. Methodology

This study aims to assess the construct validity and metric characteristics of the instrument for measuring work-family balance among Albanian teachers in primary education in North Macedonia, using a non-experimental methodology, which belongs to the fields of organizational psychology and psychometrics. The study population is all Albanian teachers in the Republic of North Macedonia, while the study sample was selected through simple random sampling on a cluster basis from the list of schools with Albanian teachers in North Macedonia provided by the Ministry of Education and Science. The total number of samples included in this study are 137 Albanian teachers with an average age $M=41.50$ years, minimum 22 years and maximum 62 years and standard deviation $SD=8.43$, their minimum experience is 1 year of work and maximum 40 years of work as a teacher, while the average experience $M=14.27$ years of work and $SD=8.55$. The participation by gender showed that of them, 34 (24.6%) are male teachers and 104 (75.4%) are female, while 95 (68.8%) are from rural areas and 43 (31.2%) from urban areas, while 123 (89.1%) of them have had full-time employment as teachers, 7 (5.1%) part-time, 5 (3.6%) temporary replacement, while 3 (2.2%) of them have not answered this question. Based on marital status, 123 (89.1%) teachers are married, 2 (1.4%) divorced, 10 (7.2%) single, 1 (0.7%) engaged, 1 (0.7%) have not indicated their marital status.

3.1. Data collection and ethical criteria: The data collection procedure was carried out online, where all teachers were distributed the questionnaire through cards and were given instructions for completing the questionnaire, where they must scan the qr code (unique card with qr code for each teacher to control external factors that may interfere during the application) and then respond to the relevant statements. For the application of the measuring instrument, all ethical criteria were respected, where permission was previously obtained from the municipal sector of primary education, the school management and the teachers themselves, while during the application, the teachers were informed that the completion of the questionnaires is anonymous and this will be ensured to the completer by respecting all ethical criteria and if any teacher expresses the desire not to finalize the application of the questionnaire, he/she can withdraw at any time without damaging the study.

3.2 Work-family balance measurement instrument: The relevant theories and research used in this study mainly refer to the author Carlson. D. S, who has studied work-family balance from many perspectives and has also adapted the instrument for measuring this variable, while Frone with his theories has contributed greatly to the definition and description of this concept, as he says in his 2003 research that work-family balance is a state where an individual's work and family life experience few conflicts while enjoying considerable relief. In defining work-family

balance as the absence or reduction of role conflicts, namely the role as an employee and a family member and the orientation or relief of these two roles in a positive function is seen as work-family balance. Based on these theories, the instrument of Dawn S. Carlson. D. S and Kacmar. K. M and Williams was used to measure this variable. L. J (2000), who measured the degree of work-family balance through work-family interference and vice versa according to three categories, namely time, involvement or fatigue and behavior, as well as the level of role conflict, these were measured through a Likert scale, from value 1 - not at all to value 5 - completely, in their paper presented three studies on this instrument that used five different categories. *“The three studies assessed the adequacy of the content, dimensions, reliability, invariance of the factor structure and the validity of the scale construct”*. The final design of this instrument was presented as adequate to measure all three dimensions conversely or the six dimensions individually of work-family role conflict through which they were measured with a total of 31 questions or statements.

Table 1. Definition of measuring instrument indicators

| Indicators | Define | example | Item No. |
|--------------------------------|--|--|-----------------|
| Time balance | Time balance is defined as the equal amount of time devoted to work and family roles (Marks and MacDermid, 1996). | I feel like I don't have enough time for my family due to my workload. | 14 |
| Involvement balance | Involvement balance is an equal level of involvement in work and family roles MacDermid (1996). | My work often distracts me from my family responsibilities. | 10 |
| Balance of satisfaction | According to MacDermid (1996), this balance is defined as experiencing role satisfaction in the workplace as an employee and in the other case in the family outside of work obligations (schedule and commitments). | The satisfaction that my family gives me at home is the same satisfaction that my work at school gives me. | 2 |

3.2 The suitability of the instrument for measuring work-family balance for Albanian teachers in North Macedonia: In the suitability procedure, the original questions of the measuring instrument were used, and they were translated through the *back translation procedure* from English to Albanian. After the translation procedure for the final structure of the questionnaire, *“face to face”* validity was also carried out with 11 teachers who were not included in the procedure of further analysis of the questionnaire. In the suitability phase of the statements from the original questionnaire, some questions were modified and removed which were not suitable and understandable according to the respective teachers. Based on the fact that *“face to face validity”* is the suitability, sensitivity or importance of the test and the relevant statements as they appear to the persons who respond to the test, i.e. the subjects. Specifically, *“face to face”* validity is defined as the degree to which respondents see the content of a test and its statements as important for the context in which the test measures. (Holden, 2010, cited by: Allen. M. S, Robson. D and Iliescu. D. 2023), the questions were adapted according to the schemes that the teachers understood more clearly and their proposals. Table 2 presents the questions of the original questionnaire after translation and the adapted ones, showing that all questions or

statements have undergone partial changes after this phase, while the question “*The tensions and anxieties I feel from family and work responsibilities often become so great that my efforts to cope with them suffer*” has been completely changed to “*Family and work responsibilities stress me so much that I find it difficult to cope with them*”, while questions from the original questionnaire such as: “*I feel that I have more to do than I can comfortably cope with*”, “*Behavior that is effective and necessary for me at work would be counterproductive at home*”, “*The things I do that make me effective at work do not help me be a better parent and spouse*”, “*What works for me at home does not seem to be effective at work and vice versa*” and “*To be successful at work, I need to be a different person than I am at home*” were completely removed from the questionnaire after the “face to face” validation phase, resulting in them being incomprehensible and inappropriate to the subjects, and were therefore not included at all in the questionnaire structure during the factor analysis phase. Based on this analysis, the original questionnaire for measuring the degree of work-family balance was reduced from 31 questions to 26 questions in the final version.

Table 2. Questions/statements of the original questionnaire and those adapted from the “face to face” validation procedure of work-family balance.

| No.: | Original questions/statements | No.: | Adapted questions/statements |
|------|---|------|--|
| 1 | After work, I come home too tired to do some of the things I would like to do. | 1 | When I come home from work I feel too tired to meet some of the family's demands. |
| 2 | Work interferes with my family activities more than I would like. | 2 | Work limits me from engaging in my family activities more than I would like. |
| 3 | I have so much to do at work that it distracts me from my personal interests. | 3 | I have so much work to do at school that it takes me away from my family interests. |
| 4 | I feel physically exhausted when I get home from work. | 4 | I feel physically exhausted when I get home from work. |
| 5 | The tensions and anxieties I feel from family and work responsibilities often become so great that my efforts to cope with them suffer. | 5 | Family and work responsibilities stress me out so much that I find it difficult to cope. |
| 6 | My family/friends don't like how often I'm preoccupied with my work while I'm at home. | 6 | My family doesn't like my preoccupation with work while I'm at home. |
| 7 | I feel emotionally exhausted when I get home from work. | 7 | When I come home from work I feel very emotionally charged. |
| 8 | The demands of my job make it difficult for me to maintain the relationships I would like with my wife and children. | 8 | The demands of my job make it difficult for me to have the relationship I would like with my family. |
| 9 | Work takes up the time I would like to spend with family/friends. | 9 | Work takes up the time I would like to spend with my family. |

| | | | |
|----|--|----|--|
| 10 | I feel like I have to rush to get everything done every day. | 10 | I feel like I constantly have to rush to get all my work done on time. |
| 11 | My work often interferes with my family responsibilities. | 11 | My work often distracts me from my family responsibilities. |
| 12 | Because my job is so demanding, I'm sometimes frustrated at home. | 12 | Because my job is very demanding, I sometimes get nervous at home. |
| 13 | I am often very tired at work because of the things I have to do at home. | 13 | I am often very tired at work because of the commitments I have at home. |
| 14 | I feel like I don't have enough time for myself. | 14 | I feel like I don't have enough time for my family due to my workload. |
| 15 | It's hard for me to relax when I'm away from work. | 15 | It's hard for me to relax even when I'm not at work. |
| 16 | My personal demands are so great that they keep me from working. | 16 | My family demands are so great that they keep me from working. |
| 17 | I often get work done at home in the evenings and on weekends. | 17 | I often take chores home to do over the weekend. |
| 18 | Overall, I don't seem to have enough time to realize my potential both in my career and as a spouse or parent. | 18 | I often feel like I don't have enough time to realize my career potential. |
| 19 | My superiors and colleagues don't like how often I'm preoccupied with my personal life while I'm at work. | 19 | The director doesn't like how often I'm preoccupied with my family life while I'm at work. |
| 20 | My personal life takes up the time I would like to spend at work. | 20 | My family life takes up the time I should be spending at work. |
| 21 | The time I have to dedicate to work prevents me from participating equally in household responsibilities and activities. | 21 | The time I have to dedicate to work prevents me from dedicating myself equally to my family. |
| 22 | My family life often interferes with my work responsibilities. | 22 | My family life often defocuses me at work. |
| 23 | I am not able to act the same way at home as I do at work. | 23 | The satisfaction that my family gives me at home is the same satisfaction that my work at school gives me. |
| 24 | The problem-solving approaches you used at work are not effective in solving problems at home. | 24 | The calm I feel when I'm around my family is the same as when I'm at work. |
| 25 | I handle interpersonal problems differently at work than at home. | 25 | I often feel stressed when I have to manage my responsibilities at work and at home. |
| 26 | I often feel the tension of trying to balance responsibilities at work and at home. | 26 | Because I am often stressed by family responsibilities, I have difficulty |

| | | | |
|--|--|--|---------------------------|
| | | | concentrating on my work. |
|--|--|--|---------------------------|

3.3 Exploratory and confirmatory factor analysis: According to Cattell (1978), the selection of the sample, namely the subjects for a question or statement for the use of factor analysis should be between the interval of 3 and 6 subjects for a question, also Gorsuch (1983) supported this argument by reasoning that a question should include at least 5 subjects (cited by: MacCallum et al., 1999), therefore, the corresponding number of subjects was completed in the pilot sample ($137/26=5.26$). Exploratory factor analysis grouped three factors that explain 66% of the variance, the grouped factors are the same as in the original questionnaire, also confirmatory factor analysis with three factors of work-family balance, namely *the balance of involvement*, *the balance of time* and *the balance of satisfaction* explains 66% of the variance. Based on the factor results presented in Table 3, the Principal Component Analysis & *Rotation Method: Varimax with Kaiser Normalization is shown*, where according to M. Forina, c. Armanino, S. Lanteri and R. Leardi (1987) the Varimax methods maximize the simplicity of the factor; variables or objects are grouped into new axes, so even in these results some questions were grouped into other factors different from the original questionnaire, while the data show that for the first factor of the balance of involvement, 10 questions were grouped with factor loadings from .606 to .829, in the second factor of the balance of time, 14 questions were grouped with factor loadings from .503 to .838, while in the third factor of the balance of satisfaction, two questions were grouped with factor loadings from .907 to .907, all questions are also grouped into a factor which shows that the instrument explains the variable and the questions are suitable for measuring work-family balance and that they have a common identity. While, the adequacy of the data and the factors that explain the main variable (KMO) resulted to be statistically significant ($p<0.01$, $KMO=0.941$) and at a very high level, where based on Kaiser's acceptance rates of KMO, he recommended that the basic criterion for factoriality should be 0.50 (Cerny & Kaiser, 1970; Kaiser, 1981; Kaiser & Rice, 1974; cited by: Hill. BD 2011), also the value for the sphericity of the number of components of the Bartlett's Test of Sphericity is statistically significant.

Table 3. Factor analysis results for the work-family balance instrument

| No.: | Questions/statements | The first factor | The second factor | The third factor |
|------|--|---------------------|-------------------|-------------------------|
| | | Involvement balance | Time balance | Balance of satisfaction |
| 7 | When I come home from work I feel very emotionally charged. | .704 | | |
| 5 | Family and work responsibilities stress me out so much that I find it difficult to cope. | .646 | | |
| 12 | Because my job is very demanding, I sometimes get nervous at home. | .639 | | |
| 3 | I have so much work to do at school that it takes me away from my family interests. | .829 | | |

| | | | | |
|----|--|------|------|------|
| 2 | Work limits me from engaging in my family activities more than I would like. | .812 | | |
| 8 | The demands of my job make it difficult for me to have the relationship I would like with my family. | .717 | | |
| 11 | My work often distracts me from my family responsibilities. | .708 | | |
| 6 | My family doesn't like my preoccupation with work while I'm at home. | .606 | | |
| 1 | When I come home from work I feel too tired to meet some of the family's demands. | .731 | | |
| 4 | I feel physically exhausted when I get home from work. | .711 | | |
| 26 | Because I am often stressed by family responsibilities, I have difficulty concentrating on my work. | | .838 | |
| 25 | I often feel stressed when I have to manage my responsibilities at work and at home. | | .567 | |
| 14 | I feel like I don't have enough time for my family due to my workload. | | .503 | |
| 9 | Work takes up the time I would like to spend with my family. | | .514 | |
| 21 | The time I have to dedicate to work prevents me from dedicating myself equally to my family. | | .526 | |
| 10 | I feel like I constantly have to rush to get all my work done on time. | | .556 | |
| 20 | My family life takes up the time I should be spending at work. | | .774 | |
| 17 | I often take chores home to do over the weekend. | | .773 | |
| 19 | The director doesn't like how often I'm preoccupied with my family life while I'm at work. | | .709 | |
| 18 | I often feel like I don't have enough time to realize my career potential. | | .611 | |
| 13 | I am often very tired at work because of the commitments I have at home. | | .710 | |
| 22 | My family life often defocuses me at work. | | .819 | |
| 15 | It's hard for me to relax even when I'm not at work. | | .658 | |
| 16 | My family demands are so great that they keep me from working. | | .567 | |
| 23 | The satisfaction that my family gives me at home is the same satisfaction that my work at school gives me. | | | .909 |
| 24 | The calm I feel when I'm around my family is the same as when I'm at work. | | | .907 |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.a

a Rotation converged in 5 iterations.

3.4. Reliability analysis: The reliability analysis of the instrument for measuring work-family balance and the relevant factors (indicators) was tested through the Cronbach's Alpha test which, according to Barbera. J, Naibert. N, Komperda. R and Pentecost. Th. C. (2021), indicates internal consistency and describes the extent to which all questions in a test measure the same concept or construct and is therefore related to the interrelationship of questions within the test, while according to Tavakol. M and Dennick. R (2011) for reliability rates indicating that “*There are different reports for acceptable alpha values, ranging from 0.70 to 0.95*”, while the results presented in Table 4 show that the involvement balance variable shows very good internal consistency with a value of 0.94, also the time balance shows the same degree of reliability with a value of 0.94 and the satisfaction balance reaches a value of 0.88, while the reliability of all questions that measure the common variable, namely work-family balance, has also been analyzed and it is shown that the instrument has very high internal consistency with a value of 0.96.

Table 4 Reliability statistics through Cronbach's Alpha test for the work-family balance instrument.

| Study variables | Cronbach's Alpha | Number of questions |
|-------------------------|-------------------------|----------------------------|
| Involvement balance | .935 | 10 |
| Time balance | .941 | 14 |
| Balance of satisfaction | .880 | 2 |
| Work-family balance | .957 | 26 |

4. Discussion

According to Shoorideh. A. F and Yaghmaei. F. (2016) “*appropriate instruments have a significant impact on the validity of a study*”, therefore, the results of this paper present data on the suitability of the construct and metric characteristics of the instrument for measuring work-family balance among Albanian primary school teachers in North Macedonia. In the results of the exploratory factor analysis, three factors with strong factor loading were grouped as: *time balance, involvement balance and satisfaction balance*, the created factors of the instrument explained 66% of the variance, also through confirmatory analysis the respective groups showed strong factor loading and explained the variance by 66%, these factors are also adapted to the concepts of the study of Marks and MacDermid (1996) that explain work-family balance through time, involvement and satisfaction, as well as with the original questionnaire of Dawn S. Carlson. D. S and Kacmar. K. M and Williams. L. J (2000), who measured the degree of work-family balance through the interference of work in the family and vice versa according to three categories, namely time, involvement or fatigue and behavior. According to the reliability analysis of Alpha Cronbach's, the results showed that the instrument as a whole has high internal consistency, and the factors in particular resulted in high internal consistency, and this result is consistent with the reliability data of the original instrument that has internal consistency of all factors according to Alpha Cronbach's. In its entirety, the instrument has proven to be adequate and suitable for measuring work-family balance among Albanian primary education teachers, and all items have shown that they have a common identity and that they are all oriented towards a construct, this shows that despite the change in the demographic characteristics of the

population to which the instrument is adapted, its changes occur only in the modification of the items and not in its factors and reliability.

4.1. Limitations of the study: The limitations of this study are directly related to the lack of a previous instrument adapted for work-family balance in North Macedonia, as well as for the teaching population. This makes it impossible to compare the results and other possible factors from another instrument. The number of subjects included in the study is within the allowed limit for the processing of psychometric analyses, therefore a larger number of subjects would give the study more possibilities for analysis and another limitation is that this topic has not been addressed in North Macedonia and studies in this area are new and do not have much theoretical and practical support for the population of this country.

4.2. Recommendations

- Based on the findings and limitations of this study, it is recommended that future research be oriented towards adapting and validating the instrument in a broader population and not only in the primary education sector in North Macedonia;
- Select a larger sample for data analysis based on the total population and apply the instrument through two forms (online and in person), creating the possibility of comparing data;
- They test the factors that have been identified in this research with factors that can be identified in their study.

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