Perceptions by Gender of Workers and Personality Traits from Three Schools on Occupational Stressors

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Abstract

Numerous studies have investigated differences in the perception of occupational stressors in teachers based on biological gender. To date, very few studies have been conducted that have investigated the perception of occupational stressors according to their 3 dimensions (frequency, level, and evolution over time) in relation to personality traits. In order to evaluate gender differences on the perception of some stressors in pre-university schools, two hundred and two (N=203) employees from two secondary and a high school were evaluated using The Personality Inventory for DSM-5 - Brief Form for adults and six occupational stressors questionnaire each having three dimensions (frequency, level and evolution over time) as follows: difficult communication or conflicts with other employees, difficult communication with superiors, low level of salary, increased workloads, violence by some workers, discrimination. In all three schools the level of the Increased workload stressor is higher in women compared to men (p1=0.046; p2=0.046; p3=0.042). The following dimensions are higher in female than male workers only in two schools as follows: level of perceived violence by some workers (p1<0.001; p3=0.024), level of difficult communication with other employees (p1=0.002; p2=0.042) and the low level of salary (p2<0.001; p3=0.015). The largest and most frequent stressor in all school units studied is increased workloads. The frequency and level of increased workloads is associated in all school units studied with the frequency of difficulties in communicating with other employees. Female workers have increased workloads stressor higher compared to male workers. In school units, relationships and communication with hierarchical superiors are the main source of discrimination perceived by workers.
Increased workloads, the biggest and most frequent stressor in schools, perceived especially by female workers, is linked to the occurrence of difficulties in communicating with other employees.

.**Keywords:** *gender, occupational stressors, personality traits, education*

1. Introduction

In the occupational environment of education, where human interrelation is a dominant characteristic of the activity, personality traits significantly modulate behavioral reactions of adaptation to the environment, to stressors as well as the particularities of communication between workers in school units, between teachers, workers and students. For a person, personality traits can have an adaptive or a maladaptive role, depending on the situation in which they find themselves. Personality dimensions contribute more to stress levels than age or gender variables [1]. Pre-existing reaction patterns based on previous experiences and innate predispositions to react to the environment can have a positive, distressing effect for an individual, if the situation requiring a response matches the learned responses or, on the contrary, can generate a stressful situation with various favorable or unfavorable reactions if the situation requiring adaptation did not represent a favorable previous experience for the individual.Personality disorders are considered maladaptive variants of personality traits. One model of dysfunctional personality traits is one that classifies them into the following five dimensions: neuroticism, introversion versus extroversion, closedness versus openness to experience, antagonism versus agreeableness, and conscientiousness [2].
These traits are: negative affectivity (the predisposition to experience negative emotions such as worry, anxiety, depression, anger, and sadness, frequently and with increased intensity), emotional

detachment (reduction of affective experiences, diminished positive experiences of pleasure or joy) and social detachment (avoidance of occasional or long-term social interactions), antagonism (through manipulative behavior, lack of empathy and egocentrism, and exaggerated importance for oneself), disinhibition (the individual's tendency to behave in a way that is oriented towards obtaining immediate rewards, impulsive, and thoughtless), psychoticism (manifestations of behaviors and beliefs with a strong unusual, eccentric, personal character, in contradiction with the culture from which the individual comes, eccentricity, cognitive and perceptual impairment, unusual beliefs and experiences). (DSM-5, 2016, p. 770). The overall severity of personality disorders or "general dysfunction" resulting from personality disorders and traits is described by global personality dysfunction [2]. The model based on dysfunctional personality traits is operationalized by the "DSM-5 Personality Inventory - Short Form - Adults" (abbreviated PID-5) [3]. PID-5 traits allow for the prediction of psychosocial functioning over time [4]. This is an argument for their study in relation to occupational stressors in school, in which stressors resulting from the social environment are in the first place. According to NIOSH, Occupational stress can be defined as the totality of harmful accommodative, physical and emotional responses that occur when the demands of the job do not match the worker's capabilities, resources or needs [5]. It is known that good communication with colleagues and superiors favors perceived self-efficacy, which is negatively associated with workplace stressors. [6]. Studies that targeted occupational stress in school by biological gender have shown that women tend to value friendships and collegiality more at work, while male teachers experience greater professional stress [7]. Some studies have shown that both sexes, regardless of years of experience in teaching, have demonstrated high levels of stress. [8].

2. Material and Method

Workers from 3 schools (two secondary and a high school) were administered a questionnaire during their periodic medical check-up that included socio-demographic characteristics (biological gender, type of residence, age, duration of employment in the institution), mentioning six occupational stressors (difficult communication or conflicts with other employees, difficult communication with superiors, low level of salary, increased workloads, (verbal) violence by some workers, discrimination at workplace). (Table 1). Problems in communication or conflicts with colleagues can be a major source of stress [9].

Table 1.Occupational stressors tracked in schools

1. Difficult communication with other workers
2. Difficult communication with superiors
3 . Low remuneration
4. Increased workload
5. Verbal aggression from other employees
6. discrimination at workplace

Each of these stressors was associated with 3 dimensions: frequency, level and evolution (the perceived level of the current stressor compared to the previous year) [10]. Each dimension of a stressor had the option to respond on a Likert-type scale with a score between 1 and 3 (Table 2).

Table 2. Coding the dimensions of stressors

Stressor dimension	answer option for stressor level	the encoding used
Frequency	never/rarely, sometimes, frequently	1 2 3
Level	absent/low, medium, high	1 2 3
Evolution	lower, the same, higher	1 2 3

To track dysfunctional personality traits, the Personality Inventory for DSM 5 - Short Form - Adults (abbreviated PID-5) was used with the following dimensions: "negative affectivity", "detached", "antagonism", "disinhibition", "psychoticism" and "general dysfunctionality" resulting from the sum of the previous 5 dimensions [11].
Spearman's correlation coefficient (noted rho) was used for correlations between questionnaire variables. The correlation was considered significant at the probability level of p=0.05. Comparison of means between samples was performed, as appropriate, independent samples T-test, analysis of variance (ANOVA). The threshold value of statistical significance p was considered significant for p=0.05.

3. Results

School No. 1 is a middle school located in an urban area, School No. 2 is a middle school located in a rural area and School No. 3 is a high school located in an urban area. In School No. 1 out of 51 employees, 43 workers completed the questionnaires received. In School No. 2 out of 32 workers, only 26 participated in the study and in School No. 3 out of a total of 120 employees, 101 workers participated by completing the questionnaires.
In the respondent samples, the female/male worker ratio (sex ratio) in schools is respectively in School no.1 of 7.33, in School no.2 of 3.54 and in School no.3 it is 4.26. In the same samples, the ratio between workers with urban and rural residences in the 3 schools is respectively 3.16 (in School no.1), 0.09 (in School no.2), 38.1 (in School no.3). In the following, the results will refer to the respondent samples from the 3 schools.
The age of the workers in the 3 schools does not differ significantly depending on the school, being between 43-45 years and the average duration as an employee in the school is approximately 15 years (Fig. 1).

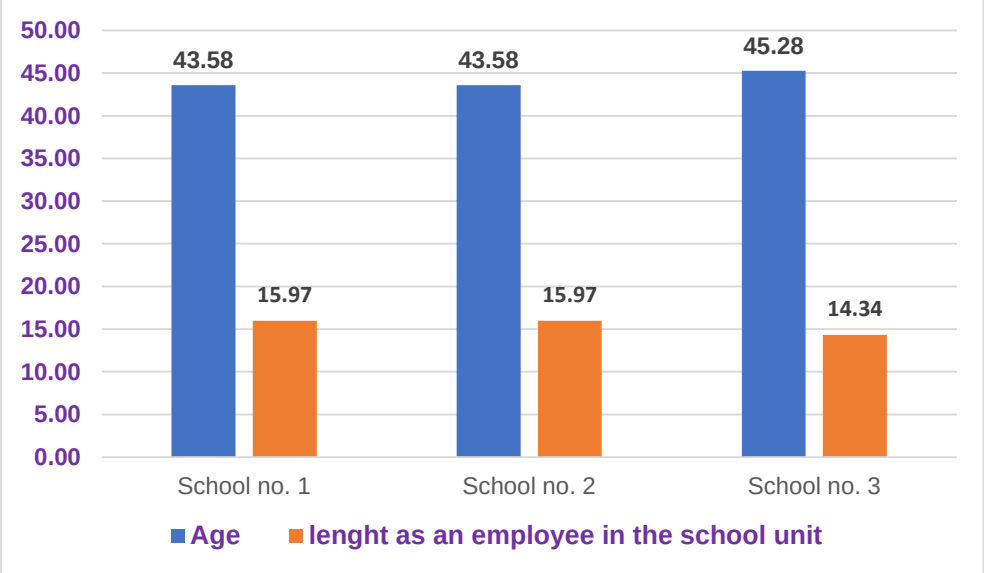

Fig. 1. Average of age and length of employment in the unit in the 3 schools

The average values of these two variables in the 3 samples representing school workers are suggestive of groups of workers in middle adulthood with good professional experience (on average 15 years).
Depending on the school unit, there are significant differences between the variables monitored in the following:
In school unit no. 1 the proportion of workers residing in urban areas is the highest compared to the lowest presence in school unit no. 2 ($p<0.001$). The perception regarding the increasing evolution of the stressor related to communication problems with other workers is maximum in school unit no. 1 compared to its minimum value in school unit no. 2 ($p=0.037$). The perception regarding the increasing evolution of the stressor related to communication problems with hierarchical superiors is the highest in school unit no. 2 being the lowest in school unit no. 1 ($p=0.023$). Workers in school unit no. 2 are most frequently stressed by communication with superiors compared to workers in school unit no. 1 who are the least stressed by this communication ($p<0.001$). Workers in school unit no. 1 have the

highest level of stress resulting from communication with superiors compared to workers in school unit no. 2 who have the lowest level of stress related to communication with hierarchical superiors ($p<0.001$).
By frequency the most frequent stressors are in descending order, similarly in the 3 schools: increased workloads, low level of salary, difficult communication or conflicts with other employees (Fig.2)

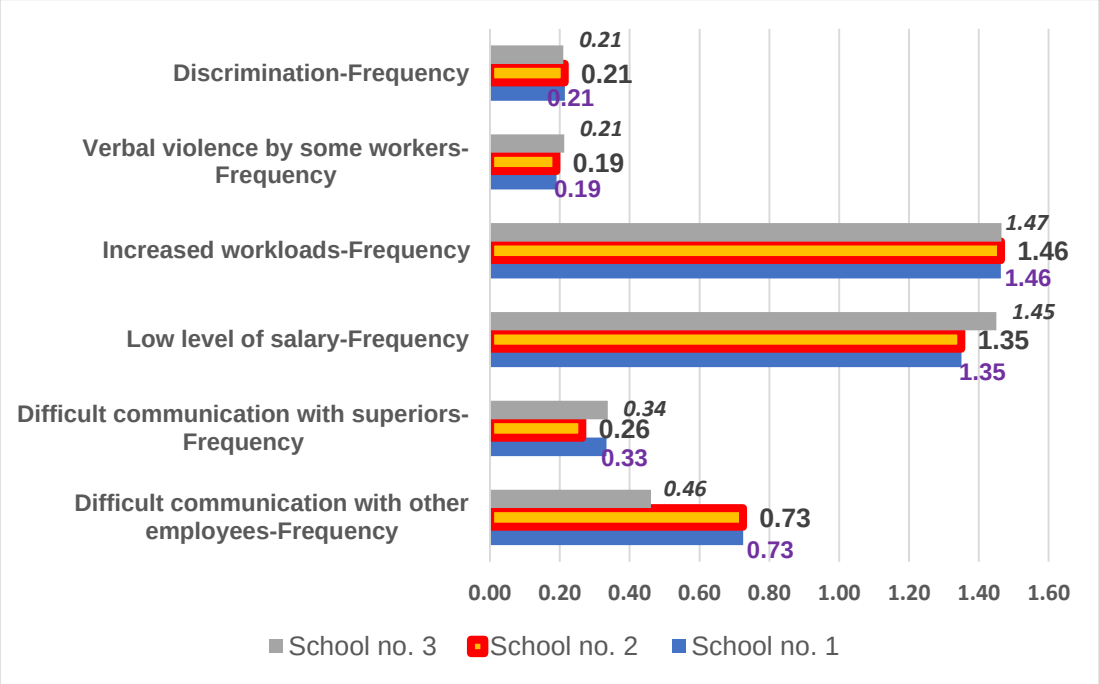

Fig. 2. Frequency of stressors (mean value) by school unit

The rarest stressor in all 3 schools is represented by verbal violence by some workers. With a slightly higher frequency, the rarest stressor in all 3 schools is discrimination.
By level, the highest level is the stressor increased workloads, followed in descending order by the following: low level of salary, difficult communication with other employees, difficult communication with superiors, violence by some workers, discrimination. It is worth noting the similar results obtained in all 3 schools. (Fig. 3)

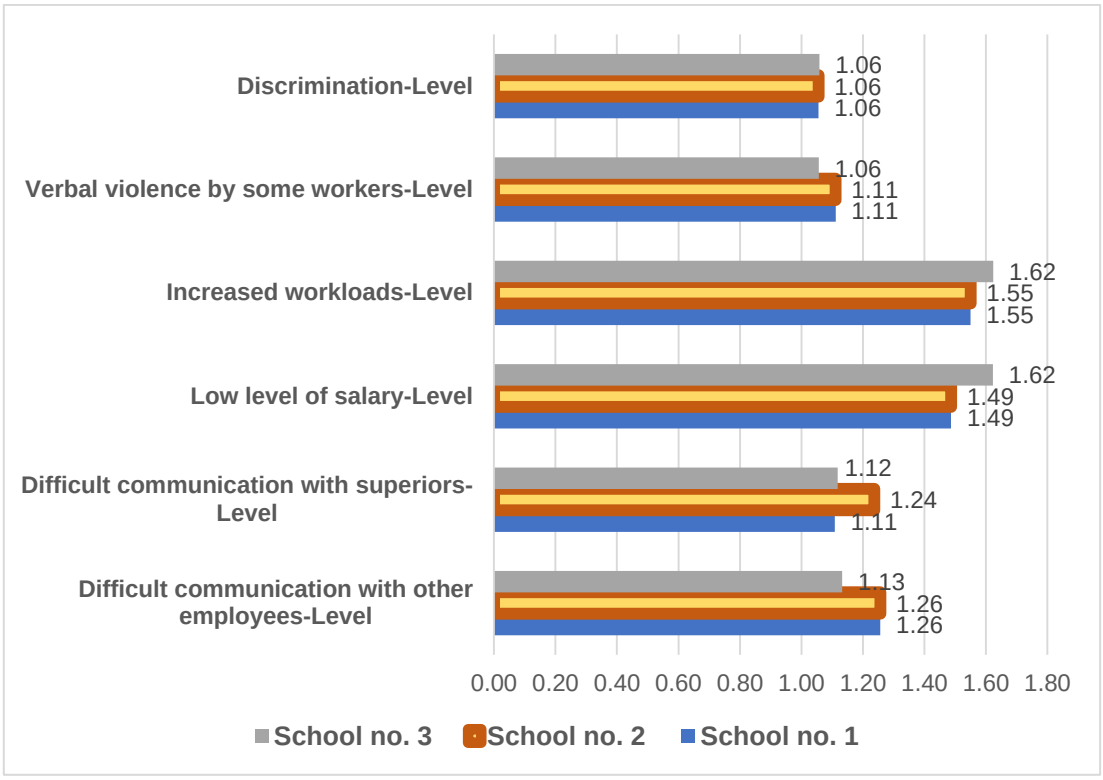

Fig. 3. Level of stressors (average value) by school unit

According to the perception of the evolution of stressors over time, low level of salary is the stressor with the highest value, followed in descending order, increased workloads, difficult communication with other employees, discrimination, difficult communication with superiors, violence by some workers. The results are similar in all 3 schools. (Fig.4)

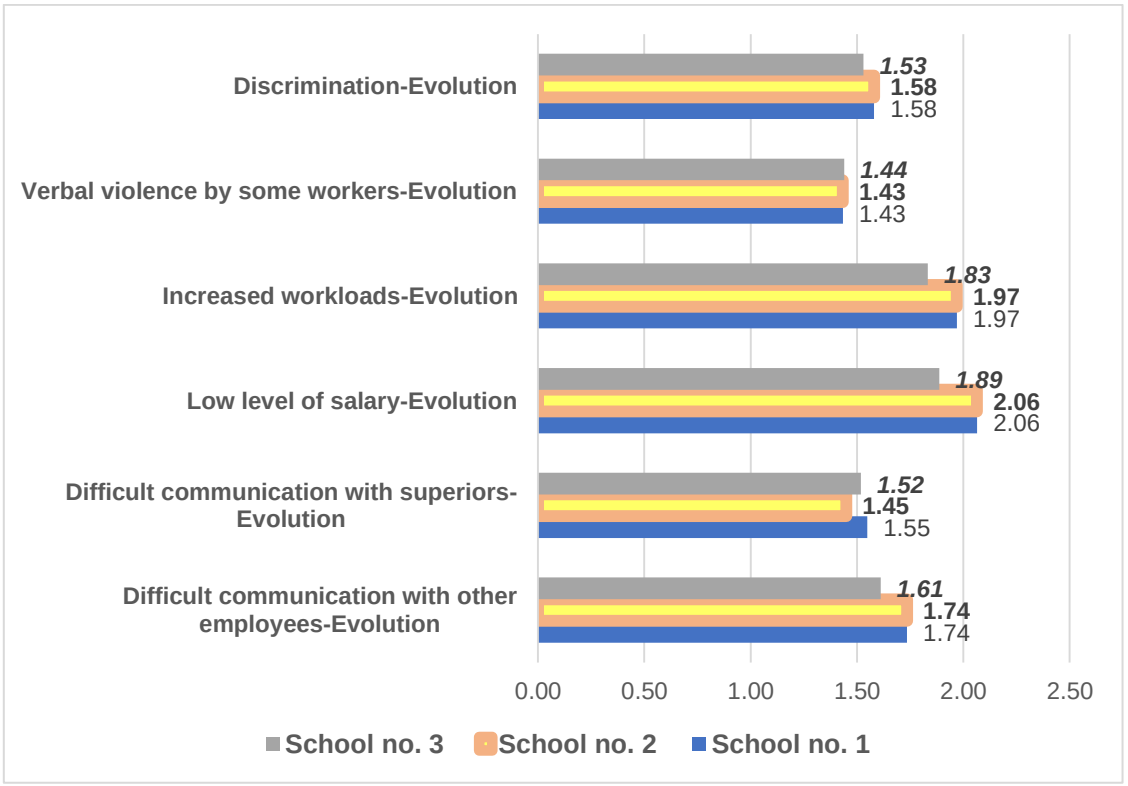

Fig.4. Evolution of stressors (average value) by school unit

Depending on the biological gender, the following significant differences appear in the 2 schools, as follows:

In school unit no. 1:

Female workers have "The level of difficult communication or conflicts with other employees" ($p<0.001$) and "The level of increased workloads" ($p=0.046$) higher compared to men. Male workers have a higher perception of the increasing evolution compared to female workers of the stressors "difficult communication with superiors" ($p<0.001$) and of "discrimination" ($p<0.001$). Female workers have higher values compared to men of the dysfunctional personality traits "Detachment"($p=0.001$), "Antagonism" ($p=0.003$) and "Disinhibition" ($p=0.006$).

In school unit no. 2:

Women have a higher "level of difficult communication or conflicts with other employees" ($p=0.042$) and "level of increased workloads" ($p=0.046$) compared to men. At the same time, women workers are more likely to experience low "levels of salary" ($p<0.001$), and "increased workloads" ($p=0.009$).

In school unit no. 3:

Women have a higher level of stressors compared to men, "increased workloads" ($p=0.042$) and violence by some workers ($p=0.024$). Men perceive low "levels of salary" more frequently compared to women. At the same time, they are older compared to women ($p=0.006$). Women have a more pronounced "dysfunctional personality trait"(global) ($p=0.016$) compared to men.

Female workers have "The level of difficult communication or conflicts with other employees" higher compared to men in 2 school units.

There are numerous correlations between the variables monitored, the presentation of which would take up a lot of space. In the following, only the correlations made by the stressor with the highest frequency and level, Increased workload, and the correlations made by the stressor discrimination are presented.

In School no.1 the following associations of the stressors increase workloads and discrimination are present:

-"increased workloads-Frequency" is positively associated with the following: "difficult communication with other employees-Frequency" ($p=0.016$), "difficult communication with superiors-Frequency" ($p=0.006$), "low level of salary-Frequency" ($p<0.001$), "low level of salary-Level" ($p=0.003$), "increased workloads-Level" ($p<0.001$), "increased workloads-Evolution" ($p=0.004$), "Detachment" ($p=0.007$);

-"increased workloads Level" is positively associated with the following variables: "difficult communication with other employees-Frequency" ($p=0.021$), "difficult communication with other employees-Level" ($p<0.001$), "difficult communication with superiors-Frequency" ($p=0.002$), "low level of salary-Frequency" ($p<0.001$), "low level of salary-Level" ($p<0.001$), "increased workloads-Frequency" ($p<0.001$), "increased workloads-Evolution" ($p=0.008$), "general dysfunction score" ($p=0.012$), "Detachment" ($p=0.003$), "Disinhibition" ($p=0.006$);

-"increased workloads-Evolution" is positively associated with the following variables: "difficult communication with other employees-Frequency" ($p=0.021$), "difficult communication with other employees-Level" ($p=0.013$), "difficult communication with other employees-Evolution" ($p=0.001$), "low level of salary-Frequency" ($p=0.035$), "low level of salary-Evolution" ($p=0.013$);

-"discrimination-Frequency" is positively associated with "verbal violence by some workers-Evolution" ($p=0.007$) and with "discrimination-Level" ($p=0.002$);

-"discrimination-Level" makes positive correlations with the following: "difficult communication with other employees-Frequency" ($p=0.019$), "difficult communication with other employees-Level" ($p=0.019$), "difficult communication with superiors-Level" ($p=0.031$);

-"discrimination-Evolution" " makes positive correlations with "difficult communication with other employees-Level" ($p=0.013$), "low level of salary-Level" ($p=0.036$) and "verbal violence by some workers-Evolution" ($p=0.009$) and at the same time it makes negative correlations with "Antagonism" ($p=0.021$).

In School no.2 the following associations of the stressors increase workloads and discrimination are present:

-"increased workloads-Frequency" is positively associated with "increased workloads-Level" (p<0.001) and with "increased workloads-Evolution" (p=0.001), "difficult communication with other employees-Frequency"(p=0.001);
-"increased workloads-Level" " is positively associated with "increased workloads-Evolution" (p=0.002) and with "difficult communication with other employees-Frequency"(p=0.019) ;
-"discrimination-Frequency" shows positive correlations with the following variables: "verbal violence by some workers-Frequency" (p=0.001), "general dysfunction score" (p=0.006), "Negative Affect" (p=0.006), "Disinhibition" (p=0.004), "Psychoticism" (p=0.001);
-"discrimination-Level" provides positive correlations with the following variables: "difficult communication with superiors-Level" (p<0.001), "Detachment" (p=0.045), "Antagonism" (p=0.043), "Disinhibition" (p0.046), "Psychoticism" (p=0.049);
"discrimination-Evolution" provides positive correlations with the following variables: "difficult communication with other employees-Evolution" (p=0.010), "difficult communication with superiors-Evolution" (p<0.001), "verbal violence by some workers-Evolution" (p<0.001).

In School no.3 the following associations of the stressors increase workloads and discrimination are present:
-"increased workloads-Frequency" makes positive correlations with the following variables: "increased workloads-Level" (p<0.001), "increased workloads-Evolution" (p<0.001), "difficult communication with superiors-Frequency" (p=0.001), "difficult communication with other employees-Frequency"(p=0.001), "difficult communication with other employees-Level"(p=0.001), "difficult communication with other employees-Evolution"(p=0.004), "low level of salary-Frequency" (p=0.001) "low level of salary-Level" (p<0.001), "low level of salary-Evolution" (p=0.047) "verbal violence by some workers-Frequency" (p=0.047), "discrimination-Frequency" (p=0.026), "general dysfunction score" (p<0.001), "Negative Affect" (p=0.002), "Detachment" (p<0.001), "Antagonism" (p=0.005), "Disinhibition" (p<0.001), "Psychoticism" (p=0.002);
-"increased workloads-Level" highlights positive correlations with the following variables: "increased workloads-Evolution" (p<0.001), "difficult communication with other employees-Frequency"(p=0.001), "difficult communication with other employees-Level"(p<0.001), "difficult communication with other employees-Evolution"(p=0.003), "general dysfunction score" (p<0.001), "Negative Affect" (p=0.001), "Detachment" (p=0.003), "Antagonism"(p=0.002), "Disinhibition" (p=0.001), "Psychoticism" (p<0.001), "verbal violence by some workers-Frequency" (p=0.023), "discrimination-Frequency" (p=0.015);
-"increased workloads-Evolution" reveals positive correlations with the following variables: "difficult communication with other employees-Frequency"(p=0.001), "difficult communication with other employees-Level" (p<0.001), "difficult communication with other employees-Evolution"(p<0.001), "discrimination-Evolution"(p=0.008), "general dysfunction score" (p=0.010), "Antagonism" (p=0.033), "Disinhibition" (p=0.020), "Psychoticism" (p=0.048);
-"increased workloads-Evolution" reveals positive correlations with the following variables: "difficult communication with superiors-Evolution" (p<0.001), "difficult communication with superiors-Level" (p=0.041), "low level of salary-Frequency" (p=0.007), "verbal violence by some workers-Frequency" (p<0.001), "verbal violence by some workers-Level" (p=0.015), "discrimination-Level" (p<0.001), "general dysfunction score" (p=0.012), "Negative Affect" (p=0.048), "Detachment" (p<0.001), "Antagonism" (p<0.001), "Disinhibition" (p=0.014), "Psychoticism" (p=0.001);
-"difficult communication with other employees-Frequency") shows positive correlations with "discrimination-Frequency"(p=0.002);
-"discrimination-Level" highlights positive correlations with the following variables: "difficult communication with superiors-Frequency" (p=0.013), "difficult communication with superiors-Level" (p<0.001), "verbal violence by some workers-Frequency" (p=0.002), "verbal violence by some workers-Level" (p<0.001), "discrimination-Evolution" (p=0.012), "Antagonism" (p=0.018);
-"discrimination-Evolution" " reveals positive correlations with the following variables: "difficult communication with superiors-Evolution" (p<0.001), "verbal violence by some workers-Evolution" (p<0.001) "Detachment" (p=0.029), "Antagonism" (p=0.015).
It is worth noting that in all school units the following results appear:
-"difficult communication with other employees-Frequency" is positively correlated with "increased workloads-Frequency" and with "increased workloads-Level".
-"discrimination-Level" is positively correlated with "difficult communication with superiors-Level"
-"discrimination-Evolution" is positively correlated with "difficult communication with superiors-Evolution"

4. Conclusions

Some perceptions of discrimination in one school by men from women can be linked to possible preconceptions or communication problems with female superiors. There are numerous associations between stressor dimensions, personality traits, socio-demographic characteristics, and school unit. In general, women have a higher perception of stressors at work compared to men, the most consistent being that of the stressor level represented by Increased workloads which is higher in female than in male workers.
The evolution and degree (level) of difficulties in communicating with hierarchical superiors is associated with the evolution and degree of discrimination perceived by workers in all school units in this study.
In the school units studied, the stressor whose evolution is perceived as the most threatening, with the most unpleasant evolution, is represented by low remuneration.
Dysfunctional personality traits are very frequently positively associated with the perception of stressors, without there being a similar association between a specific stressor and certain traits, present similarly in all 3 schools.
The largest and most frequent stressor in all school units studied is increased workloads.
The frequency and level of increased workloads is associated in all school units studied with the frequency of difficulties in communicating with other employees.
Female workers have increased workloads stressor higher compared to male workers.
In school units, relationships and communication with hierarchical superiors are the main source of discrimination perceived by workers.
Increased workloads, the biggest and most frequent stressor in schools, perceived especially by female workers, is linked to the occurrence of difficulties in communicating with other employees.

These results show the need for school leaders to change their behavior in exercising the leadership function by reducing the rigid, hierarchical approach to a collegial one, by improving communication skills, in the non-discriminatory treatment of school workers.
A salary level that at least keeps pace with inflation is an important measure that concerns school workers.
Finding ways to reduce workloads, especially bureaucratic ones, is an absolutely necessary, imperative measure.

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