

BASIC PSYCHOLOGICAL NEEDS: PERFORMANCE OF ELEMENTARY SCHOOL STUDENTS AND PERCEPTION OF TEACHER SUPPORT

NECESSIDADES PSICOLÓGICAS BÁSICAS: DESEMPENHO DE ESTUDANTES DO ENSINO FUNDAMENTAL E PERCEÇÃO DE SUPORTE DE PROFESSORES

NECESIDADES PSICOLÓGICAS BÁSICAS: RENDIMIENTO DE LOS ALUMNOS DE PRIMARIA Y PERCEPCIÓN DEL APOYO DE LOS PROFESORES



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ABSTRACT: This study investigated the perception of 123 3rd, 4th, and 5th-grade elementary school teachers about meeting the Basic Psychological Needs of students with different performances and periods of return to school during the pandemic. This is a cross-sectional, descriptive, and correlational study, with data collection in a virtual environment. Based on the student's performance, as reported by the teacher, two profiles were found. One is for students considered to be performing well enough, with more support in all dimensions, and the other is for students considered to be performing average or poorly, with more provision of Structure and moderate support for Involvement and Autonomy. The results suggest that student performance can influence the teacher's motivational style, which can have an impact on student development and well-being. It is clear that teachers need to be trained in Basic Psychological Needs.

KEYWORDS: Basic Psychological Needs. Students. Teachers. Elementary School. COVID-19.

RESUMO: Este estudo investigou a percepção de 123 professores, do 3º, 4º e 5º anos do Ensino Fundamental, acerca do atendimento às Necessidades Psicológicas Básicas de estudantes, com diferentes desempenhos, no período de retorno às aulas na pandemia. Trata-se de um estudo de corte transversal, descritivo e correlacional, com coleta de dados em ambiente virtual, utilizando instrumento de autorrelato traduzido para o estudo. Verificou-se a partir do desempenho do estudante, informado pelo professor, dois perfis. Um para estudantes com desempenho considerado suficiente, com maior auxílio em todas as dimensões, e outro, para estudantes considerados com desempenho médio e insuficiente, com mais fornecimento de Estrutura e moderado suporte ao Envolvimento e apoio à Autonomia. Os resultados são sugestivos que o desempenho do estudante pode influenciar o estilo motivador do professor, o que pode impactar o desenvolvimento e bem-estar estudantil. Evidencia-se a necessidade de instrumentalização do professor acerca das Necessidades Psicológicas Básicas.

PALAVRAS-CHAVE: Necessidades Psicológicas Básicas. Estudante. Professor. Ensino Fundamental. COVID-19.

RESUMEN: Este estudio investigó la percepción de 123 profesores de 3º, 4º y 5º de primaria sobre la atención a las Necesidades Psicológicas Básicas de alumnos con diferentes desempeños de regreso a la escuela durante la pandemia. Se trata de un estudio transversal, descriptivo y correlacional, con datos recolectados en ambiente virtual, utilizando un instrumento traducido para el estudio. A partir del rendimiento de los alumnos comunicado por el profesor, se identificaron dos perfiles. Uno para los alumnos considerados con rendimiento suficiente, con más apoyo en todas las dimensiones, y otro para los alumnos considerados con rendimiento medio o bajo, con más provisión de Estructura y apoyo moderado a la Implicación y apoyo a la Autonomía. Los resultados sugieren que el rendimiento de los alumnos puede influir en el estilo motivacional del profesor, lo que puede repercutir en el desarrollo y el bienestar de los alumnos. Está claro que los profesores necesitan estar equipados con las Necesidades Psicológicas Básicas.

PALABRAS CLAVE: Necesidades Psicológicas Básicas. Estudiantes. Profesores. Escuelas Primarias. COVID-19.

Introduction

The theory of Basic Psychological Needs (BPN) is part of a broader theory known as Self-Determination Theory, which aims to understand aspects related to human motivation, specifically the interaction between external motivation (reward systems, grades, opinions) and internal motivation (interest, curiosity, values). Another interest in Self-Determination Theory is related to understanding the impacts of context on people's motivation, hence how BPNs are met or frustrated (Ryan; Deci, 2020).

The BPN theory argues that regardless of culture, the satisfaction of Autonomy, Competence, and Relatedness plays an essential role in development, adaptation, and well-being, and their absence or frustration can influence motivation and psychological well-being (Ryan; Deci, 2020). Support for the BPN of Autonomy pertains to people's need to be the authors of their actions, a desire for authenticity, to take part in decisions, and to make choices; when frustrated, the context is one of coercion. Relatedness is the BPN for connection and belonging to a social group, and when unmet, the context is one of rejection. The BPN for Competence is experienced when the desire to feel effective in interactions, produce positive outcomes, and be a protagonist is met; when frustrated, the context is one of chaos (Ryan; Deci, 2020).

The satisfaction of BPN contributes to student engagement, which involves high-quality involvement in the schooling process, including effort and persistence (behavioral), attention and concentration (cognitive), and enthusiasm and interest (emotional) (Skinner *et al.*, 2008). Therefore, students' perception of having their BPN met shapes their psychological and social experiences at school, as more engagement leads to better learning quality, greater academic success, and a stronger sense of competence (Skinner *et al.*, 2009; Hosan; Hoglund, 2017; Archambault; Dupéré, 2017).

Motivation and psychological well-being are influenced by the satisfaction, absence, or frustration of BPN (Ryan; Deci, 2020). In this direction, when unmet, they impact student engagement, and disengaged students tend to perform poorly, harbor feelings of incapacity, feel marginalized, and consequently receive less support and more coercion from teachers, besides forming friendships with disinterested and dissatisfied peers (Skinner *et al.*, 2008). Studies on school engagement highlight that teachers can support the need for competence, relatedness, and Autonomy (Skinner; Pitzer; Brule, 2014; Barber; Buehl; Beck, 2017).

Studies point to a reciprocal relationship between student and teacher perceptions regarding the satisfaction of BPN, with the perception of teacher support for Autonomy being

positively related to the student's perception of the teacher as an autonomy-supportive context and a negative relationship between the student's perception of the teacher as a structured context and the teacher's perception of meeting the need for Competence (Domen *et al.*, 2020; Kurdi *et al.*, 2018).

Teachers' perceptions regarding the fulfillment of their own Basic Psychological Needs (BPN) influence how they support their students' needs (Aelterman *et al.*, 2019; Moè; Katz, 2022), as well as the enthusiasm perceived by the teacher in performing their profession (Frommelt; Schiefele; Lazarides, 2021). Teachers with a low perception of their needs for autonomy being met (such as the ability to influence school policy, set their teaching objectives, and experience less bureaucratic interference) are less likely to support students' need for autonomy (Marshik; Ashton; Algina, 2017; Martinek, 2019). When teachers perceive their BPN as being met, they tend to adopt a motivating style (supportive of autonomy and structuring); conversely, frustration leads to a demotivating style (controlling and chaotic) (Aelterman *et al.*, 2019; Moè; Katz, 2022).

Support for students' BPN can be influenced by variations in teachers' motivational strategies, who, facing an antagonistic understanding of providing Structure and supporting Autonomy, might, for example, adopt more structured activities (more communication about expectations and behaviors) and less autonomy for low-performing students (Cheon; Reeve; Vansteenkiste, 2020; Archambault *et al.*, 2020). Regarding the approach of teachers towards low-performing, disinterested, or behavior-problem students, Aelterman *et al.* (2019) highlight that teachers may feel the need to prioritize teaching objectives, thus preferring to structure more activities, communicate expectations more frequently, and guide behavioral changes.

Considering that context plays a fundamental role in meeting BPN (Ryan; Deci, 2020), the context of the COVID-19 pandemic interfered with the fulfillment of people's need for Autonomy due to the requirement for physical distancing, impacting support for Relatedness, and affecting the perception of Competence, thus impacting overall mental well-being (Cantarero; Van Tilburg; Smoktunowic, 2020; Holmes *et al.*, 2020). Among children and adolescents, the pandemic caused psychological changes such as stress and anxiety (Bhagal *et al.*, 2021; Capurso *et al.*, 2020; Miranda *et al.*, 2020), changes in behavior and emotional expression, such as difficulty concentrating, boredom, irritability, restlessness, and loneliness (Jiao *et al.*, 2020; Orgilés *et al.*, 2020; Pasqualini, 2021).

The pandemic and social distancing measures have the potential to be perceived as frustrating to basic psychological needs, with BPN being a strong predictor of changes in

people's mental health (Vermote *et al.*, 2021). Changes in the perception of BPN fulfillment were identified in a study conducted by Costa *et al.* (2022), which found a reduction in satisfaction during the initial phase and throughout confinement; however, higher satisfaction was associated with both online and offline social support.

Among students, the perception of having their BPN met during the critical phase of the pandemic, that is, during fully remote learning, was higher for female students and for those with greater access to technological means for remote classes in the later years of elementary school (Ferreiro, 2021). Male students, also in the second stage of elementary school, perceived lower fulfillment of their BPN, while female students reported lower life satisfaction (Dias, 2021).

Considering the potential effects of the pandemic on people's mental health and the positive impacts of BPN on development, student engagement, and psychological well-being, this study aimed to investigate the perception of teachers of 3rd to 5th grades regarding their support for students' BPN with different performance levels, as reported by the teachers, during the return to in-person classes after the COVID-19 pandemic, that is, in the less critical phase of coronavirus transmission.

Materials and Methods

The sample consisted of 123 teachers, most of whom were from the Southeast region (77%) and the state of Espírito Santo (48%). The majority were female (91%), 43% identified as white, and the average age was 42 years. More than half (57%) had a specialization degree, and 60% had more than 10 years of experience in elementary education. Regarding their employment, 89% were from the public school system and 11% from private schools, with 65% being tenured and 35% contracted. At the time of data collection, the majority (52%) were teaching in two shifts, with an average income of 5 minimum wages.

A characterization questionnaire and the Teacher as Context Questionnaire — Teacher version (TCQ-T), a translated and culturally adapted version of the Teacher Report of Teacher Context developed by Wellborn *et al.* (1992), were used. This instrument evaluates the teacher's perception of support for Engagement, Structure, and Autonomy to assist students' BPN.

Data collection took place between October and December 2021, during which time public schools were already returning to in-person classes, with most teachers transitioning from fully remote to in-person teaching with alternating formats. The collection was conducted

virtually, and invitations containing the link and QR code for the Google Forms questionnaires were sent out via social networks, especially through a national WhatsApp network. To participate, teachers had to access the link, agree to the terms via the Informed Consent Form (ICF), respond with one of their students in mind, and at the end of the questionnaire, indicate the performance level of the student they were considering as sufficient, average, or insufficient.

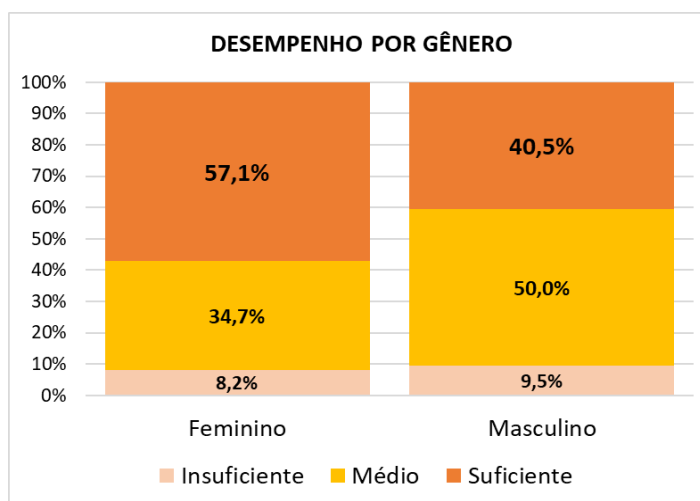
The data were organized in an Excel spreadsheet and subjected to statistical analysis using the Statistical Package for the Social Sciences (SPSS), version 18. Descriptive analysis was performed based on observed frequency and percentage, mean, and standard deviation in tables and graphs. Some data underwent preparation in the database following calculation guidelines. For instance, the TCQ-T instrument had negatively coded items inversely recorded for subsequent calculations in subscales and scales with scores ranging from 1 to 4, where 4 indicated more positive results. The Mann-Whitney U test was applied to verify the difference between subgroups by performance.

All study procedures adhered to the established ethical standards, which were communicated to the participants through the Informed Consent Form (ICF). The Research Ethics Committee approved the research.

Results

Teachers, when responding to the TCQ-T instrument, were instructed to consider one of their students who had been in their class for a minimum of 2 months. After completing the questionnaire, teachers were asked to provide the gender and performance level of the student they had in mind. In the distribution by performance, 47% were considered sufficient, 44% average, and 9% insufficient, with 74 being male and 49 female (Figure 1).

Figure 1 - Distribution of Performance by Student Gender (N=123)



Source: Authors' elaboration.

When comparing sufficient and average performances (Table 1), teachers' perceptions indicated higher scores for students considered to have sufficient performance across all dimensions: support for Engagement ($U= 763.0$; $p= 0.000$) ($M= 3.24$ and $M= 2.86$, respectively), provision of Structure ($U= 832.00$; $p= 0.000$) ($M= 3.49$ and $M= 3.19$, respectively), and support for Autonomy ($U= 672.0$; $p= 0.043$) ($M= 3.29$ and $M= 2.84$, respectively). Higher scores were identified in the categories of Negative Attunement ($U= 749.0$; $p= 0.000$) ($M= 2.43$ and $M= 1.78$, respectively), Control ($U= 778.0$; $p= 0.000$) ($M= 2.55$ and $M= 1.74$, respectively), and Negative Relevance ($U= 978.0$; $p= 0.000$) ($M= 3.74$ and $M= 3.30$, respectively) for students considered to have average performance compared to those with sufficient performance.

Table 1 – Comparison of the Fulfillment of Students' Psychological Needs by Performance (sufficient $n= 58$ and average $n= 54$)

Dimensions/Categories	Sufficient/Medium		
	Average Ranks	Average (DP)	U (p-value)
Support Engagement**	70,34	3,24 (0,41)	763,0
	41,63	2,86 (0,43)	(0,000)*
Affection	68,64	3,86 (0,40)	862,0
	43,46	3,45 (0,60)	(0,000)*
Tuning (negative)	42,41	1,78 (0,60)	749,0
	71,63	2,43 (0,66)	(0,000)*
Resource dedication	61,43	2,86 (0,85)	1280
	51,20	2,65 (0,71)	(0,044)*
Trust	68,54	3,25 (0,64)	868,0
	43,56	2,75 (0,61)	(0,000)*

Supply Structure**	69,19	3,49 (0,28)	832,0
	42,90	3,19 (0,40)	(0,000)*
Contingency	66,85	3,66 (0,48)	966,0
	45,38	3,34 (0,59)	(0,000)*
Expectations (negative)	48,76	1,46 (0,55)	1117
	64,81	1,84 (0,77)	(0,003)*
Monitoring/Adjustments	68,33	3,19 (0,37)	880,0
	43,80	2,88 (0,44)	(0,000)*
Full help/support	66,47	3,74 (0,48)	988,0
	45,79	3,35 (0,64)	(0,000)*
Autonomy Support**	71,91	3,29 (0,39)	672,0
	39,94	2,84 (0,40)	(0,000)*
Option	62,73	3,34 (0,56)	1205
	49,81	3,13 (0,55)	(0,000)*
Control	42,91	1,74 (0,84)	778,0
	71,09	2,55 (0,84)	(0,000)*
Respect	57,52	2,41 (1,06)	1507
	55,41	2,33 (0,97)	(0,367)
	45,31	2,04 (1,08)	917,0
	68,52	1,82 (1,08)	(0,000)*

Source: Authors' elaboration.

(*) Mann-Whitney test, significant if $p \leq 0.05$. ** Dimensions.

In Table 2, perceptions were better in all dimensions for sufficient performance compared to insufficient, with significant results for support for Engagement ($U= 183.0$; $p= 0.012$) ($M= 3.24$ and $M= 2.85$, respectively), provision of Structure ($U= 163.0$; $p= 0.004$) ($M= 3.49$ and $M= 3.16$, respectively), and support for Autonomy ($U= 108.0$; $p= 0.000$) ($M= 3.29$ and $M= 2.72$, respectively). Higher scores for insufficient performance compared to sufficient were identified in Negative Attunement ($U= 167.0$; $p= 0.005$) ($M= 2.45$ and $M= 1.78$, respectively), Control ($U= 31.0$; $p= 0.000$) ($M= 3.58$ and $M= 1.74$, respectively), and Negative Relevance ($U= 219.0$; $p= 0.017$) ($M= 1.82$ and $M= 1.28$, respectively).

Table 2 – Comparison of the Fulfillment of Students' Psychological Needs by Performance (insufficient $n= 11$ and sufficient $n= 58$)

Dimensions/Categories	Sufficient/Medium		
	Average Ranks	Average (DP)	U (p-value)*
Support Engagement**	22,64	2,85 (0,55)	183,0
	37,34	3,24 (0,41)	(0,012)*
Affection	17,95	3,18 (0,92)	132,0
	38,23	3,86 (0,40)	(0,000)*
Tuning (negative)	48,82	2,45 (0,91)	167,0
	32,38	1,78 (0,60)	(0,005)*
Resource dedication	29,77	2,55 (0,88)	262,0
	35,99	2,86 (0,85)	(0,173)
Trust	25,23	2,93 (0,55)	212,0
	36,85	3,25 (0,64)	(0,038)*

Supply Structure**	20,77	3,16 (0,44)	1,63,0
	37,70	3,49 (0,28)	(0,004)*
Contingency	25,27	3,53 (0,43)	212,0
	36,84	3,66 (0,48)	(0,035)*
Expectations (negative)	45,36	2,00 (0,87)	205,0
	33,03	1,46 (0,55)	(0,025)*
Monitoring/Adjustments	20,05	2,80 (0,53)	155,0
	37,84	3,19 (0,37)	(0,002)*
Full help/support	19,50	3,05 (0,74)	149,0
	37,94	3,74 (0,48)	(0,001)*
Autonomy Support**	15,82	2,72 (0,42)	108,0
	38,64	3,29 (0,39)	(0,000)*
Option	28,91	3,18 (0,48)	252
	36,16	3,34 (0,56)	(0,135)
Control	61,23	3,58 (0,50)	31,0
	30,03	1,74 (0,84)	(0,000)*
Respect	36,68	2,55 (1,29)	301,0
	34,68	2,41 (1,06)	(0,413)
	44,14	2,04 (1,08)	218,5
	33,27	1,28 (0,79)	(0,017)*

Source: Authors' elaboration.

(*) Mann-Whitney test, significant if $p \leq 0.05$. ** Dimensions.

When comparing groups with performance evaluated as insufficient and average, there was a difference only in the Control category ($U = 98.0$; $p = 0.000$) within the context of support for Autonomy, with higher means for insufficient performance ($M = 3.58$ and $M = 2.55$, respectively), as shown in Table 3.

Table 3 – Comparison of the Fulfillment of Students' Psychological Needs by Performance (insufficient $n = 11$ and average $n = 54$)

Dimensions/Categories	Insufficient/Average		
	Average Ranks	Average (DP)	<i>U</i> (<i>p</i> -value)
Support Engagement**	38,05	2,85 (0,55)	242,0
	31,97	2,86 (0,43)	(0,109)
Affection	28,82	3,18 (0,92)	251
	33,85	3,45 (0,60)	(0,205)
Tuning (negative)	34,09	2,45 (0,91)	285
	32,78	2,43 (0,66)	(0,412)
Resource dedication	34,00	2,55 (0,88)	286
	32,80	2,65 (0,71)	(0,422)
Trust	37,00	2,93 (0,55)	253
	32,19	2,75 (0,61)	(0,221)
Supply Structure**	31,45	3,16 (0,46)	280
	33,31	3,19 (0,40)	(0,386)
Contingency	36,82	3,53 (0,43)	255
	32,22	3,34 (0,49)	(0,234)
Expectations (negative)	36,45	2,00 (0,87)	259
	32,30	1,84 (0,77)	(0,253)
Monitoring/Adjustments	30,27	2,80 (0,53)	267
	33,56	2,88 (0,44)	(0,304)
Monitoring/Adjustments	26,36	3,05 (0,74)	224

	34,35	3,35 (0,64)	(0,099)
Full help/support	28,59	2,72 (0,42)	249
	33,90	2,84 (0,40)	(0,202)
Autonomy Support**	34,55	3,18 (0,48)	280
	32,69	3,13 (0,55)	(0,383)
Option	51,14	3,58 (0,50)	98,0
	29,31	2,55 (0,84)	(0,000)*
Control	35,55	2,55 (1,29)	269
	32,48	2,33 (0,97)	(0,321)
Respect	29,91	1,82 (1,08)	263
	33,63	2,04 (1,08)	(0,283)

Source: Authors' elaboration.

(*) Mann-Whitney test, significant if $p \leq 0.05$. ** Dimensions.

Discussion

As presented, students whose performance was reported by teachers as sufficient had a higher mean perception of the fulfillment of all dimensions of the BPN. For students with performance reported as average or insufficient, the mean was higher in the provision of Structure and moderate in support for Engagement and Autonomy. The data from the sample suggest that teachers may provide differentiated support for BPN based on their perception or expectations of the student's performance, consistent with findings from Domen (2020), Hornstra *et al.* (2018), and Hornstra *et al.* (2021). According to Hornstra *et al.* (2018), students with higher performance were the most supported in fulfilling their BPN. Thus, the profiles of support may change based on the student's academic performance, offering more Structure and less Autonomy to those with lower academic competence (Hornsta *et al.*, 2015).

The perception of support for Engagement was moderate when student performance was considered average, with the category of Negative Responsiveness showing a higher perception for students with average and insufficient performance. On the other hand, the category of Resource Dedication was perceived as being more provided to students with performance indicated as sufficient. Given the long period of remote learning and the challenges presented by the return context (IP, 2021; Carrana, 2022), teachers may have encountered difficulties in establishing bonds and understanding the particularities and educational needs of the students, which could explain the result in Negative Responsiveness. Teachers may also have struggled to provide more individualized attention due to the number of students needing attention.

Students whose performance was reported by teachers as insufficient received lower perceived support for Autonomy, with higher means in the Control category, which correlated negatively with support for Autonomy ($r = -0.71$). A similar result was found in the study by

Archambault *et al.* (2020), in which teachers, in practice, supported less Autonomy in combination with more Structure and Engagement for low-performing students. In the study by Hornstra *et al.* (2015), it was identified that teachers who believed that lower-performing students did not have the necessary skills for Autonomy-supportive teaching increased support for Engagement combined with the use of strategies related to Control (pressure, external incentives, controlling the student's actions and thoughts, thereby negating their perspectives).

The Structure dimension, whose teachers' perception showed the highest means of support for both reported student performances, exhibited a positive correlation (albeit weaker) with the Respect category of the Autonomy dimension ($r = 0.16$). This refers to the teacher's support for the student to take a more active role in the teaching-learning process, allowing them to have more autonomous attitudes, such as making decisions about school tasks (Skinner *et al.*, 2008). Although the perception of Competence acts as a predictor for Behavioral Engagement, through improved Effort in classes (Pitzer & Skinner, 2017), studies indicate that this dimension is provided in a manner antagonistic to support for Autonomy (Cheon; Reeve; Vansteenkiste, 2020; Domen *et al.*, 2020).

In this study, when dealing with low-performing students, teachers perceived themselves as providing more Structure with less support for Autonomy, similar to the study by Archambault *et al.* (2020), indicating that teachers tend, in contexts where students have special educational needs (lower performance), to structure and organize classroom activities more (provision of Structure), limiting opportunities for freer interactions (support for Autonomy).

These differences in teacher perception impact their motivational style, according to Skinner *et al.* (2008), due to changes in the functions of BPN when perceived by students. Thus, if the teacher adopts a style with more provision of Structure and little support for Autonomy, the teacher as a context may be perceived as more controlling. On the other hand, if students need more support and perceive more support for Autonomy combined with less provision of Structure, the teacher as a context may be perceived by them as neglectful, leading them to feel abandoned to complete tasks on their own.

The provision of Structure in a way that supports Autonomy was the subject of investigation in a study conducted by Cheon, Reeve, and Vansteenkiste (2020), in which they carried out an intervention to equip teachers to provide Structure in a way that supports Autonomy and to avoid controlling instruction (Structure without support for Autonomy), thus achieving an ideal motivational style. The intervention aimed to instruct how to provide rules,

expectations, guidance, daily schedules, goals, standards, assessments, orientation, help, behavior models, differentiated instruction, support, mentoring, and feedback in a highly autonomy-supportive manner. The study's conclusions were that both teachers and students who participated in the study had longitudinal gains, with teachers becoming more confident, satisfied, and enthusiastic about teaching, and students becoming more engaged during learning activities and improving in performance.

In the study of engagement, Skinner *et al.* (2008) warn about the prospective effects that teachers' perception of meeting students' basic psychological needs (BPN) can have. The context of addressing BPN impacts the promotion of school engagement and student performance (Cheon; Reeve; Vansteenkiste, 2020; Hornstra *et al.*, 2018; Olivier; Archambault; Dupéré, 2020; Yang; Zhou; Hu, 2021), and consequently, the student's relationship with the teacher (Hosan; Hoglund, 2017; Ruzek *et al.*, 2016).

However, students experiencing learning or behavioral difficulties may be perceived by teachers as less engaged (Archambault; Dupéré, 2017), which in turn has the potential to address students' BPN with a combination of motivational styles detrimental to student engagement (Archambault *et al.*, 2020). Less engaged students also exhibit lower academic development (Olivier; Archambault; Dupéré, 2020; Skinner *et al.*, 2009; Yang; Zhou; Hu, 2021).

When teachers withdraw their involvement with disinterested students and become more demanding and coercive, a vicious cycle ensues, resulting in mutual dissatisfaction with teaching and learning, discouragement, antipathy, frustration, and stress (Furrer, Skinner, Pitzer *et al.*, 2014). This cycle impairs student resilience, as behavioral and emotional disinterest are linked to greater reliance on negative coping strategies such as avoidance and guilt (Skinner; Pitzer; Steele *et al.*, 2013) opening possibilities for involvement in bullying (Valle, 2018).

For the return to in-person classes after a long period of remote learning, experts have emphasized the need for school-welcoming practices to provide a safe socio-emotional environment (Capurso *et al.*, 2020; Linhares, 2020). In this study, data indicate that during the phase of fully returning to in-person classes, which is less critical in the pandemic, there were two profiles of addressing students' BPN based on reported student performance by the teacher, when compared across the three needs. One profile emerged when the reported student performance was sufficient, characterized by greater assistance in all dimensions. The other profile emerged when the reported performance was average or insufficient, characterized by greater provision of Structure combined with moderate support for Engagement and Autonomy.

Understanding these different motivational profiles is a line of investigation related to addressing BPN and suggests the existence of imbalanced profiles within the same classroom, indicating that teachers assist students differently (Archambault *et al.*, 2020; Hornstra *et al.*, 2021). These reflections are relevant and suggestive regarding the need to engage educators in discussing what BPN are, how they impact learning, development, and student well-being. There is also a need to equip teachers with motivational styles that, when practiced, consider the diversity of students' educational needs.

Final considerations

This study aimed to investigate teachers' perceptions from 3rd to 5th grade of elementary school regarding the support of students' basic psychological needs (BPN), based on their performance information in the context where classes were transitioning from fully remote to in-person due to COVID-19. Two profiles of BPN support were identified concerning student performance: one with greater assistance in all dimensions for students identified with good performance, and another characterized by greater provision of Structure, combined with moderate support for Engagement and Autonomy for students considered with average or insufficient performance.

This perception may be related to the context of returning to classes that exhibited characteristics of low provision of Structure, as teachers may have felt pressure to be effective in teaching (Ferget *et al.*, 2020), to address learning gaps (Cunha; Silva; Silva, 2020) amid student demotivation or feeling unsupported in implementing strategies to increase motivation (IP, 2021).

Regarding the teacher's approach to students with poor performance, disinterest, or behavioral issues, Aelterman *et al.* (2019) highlight that teachers may prioritize teaching goals and thus prefer to structure more activities, communicate higher expectations, and guide behavioral changes. When there is support for autonomy combined with structured provision, there is a risk of either permissiveness or extreme control.

When BPN are not met, they contribute to student disengagement, characterized by low-quality participation, learning and behavioral problems, and low academic performance (Hosan; Hoglund, 2017; Archambault; Veronique, 2017). Meeting students' BPN means providing essential psychological nutrients for their development and well-being; in this regard, we agree with Ryan and Deci (2020) that teachers also need these nutrients, as they require

necessary support for their own BPN to effectively assist students' needs. Thus, the data indicate the need to investigate how teachers perceive the fulfillment of their own BPN in the school context where they work, given that meeting students' BPN may be influenced by this perception.

As study limitations, it should be noted the inability to measure different time points, such as in a typical classroom situation, as during the data collection period, participants were returning to fully in-person teaching after a long period of remote learning. Furthermore, conducting a study with dependent samples could be considered to measure the reciprocal effects of perceptions of BPN support between students and teachers, as well as perceptions of students and teachers regarding all students in the class.

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