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Interrelationships among quality of work life, job satisfaction, and employee commitment: Implications for employee performance

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Abstract

Purpose: This paper examines the direct and indirect relationships between quality of work life (QWL), job satisfaction (JS), and employee commitment (EC), and their combined effect on employee performance (EP).

Design/methodology/approach: A 43-item questionnaire was administered to 600 white- and blue-collar workers in the manufacturing, commerce, and service sectors in Baja California, Mexico. Partial least squares structural equation modeling (PLS-SEM) was used to test the proposed direct and indirect relationships. QWL and JS were modeled as reflective constructs, whereas EC and EP were specified as second-order emergent constructs using a two-stage approach.

Findings: QWL was positively and significantly associated with JS, EC, and EP. In contrast, the direct relationships between JS and EP, EC and EP, and JS and EC were not statistically significant. The bootstrapped indirect effects in the primary structural model did not support mediation. Nevertheless, a complementary sequential mediation analysis suggested that QWL may relate to EP indirectly through JS and EC. Overall, the findings indicate that QWL is the most consistent antecedent in the model, while expected attitude–performance relationships appear to be contingent on context.

Research limitations/implications: Employee performance was measured through self-reports only; the findings should therefore be interpreted as reflecting perceived rather than externally validated performance. QWL was also represented by a reduced set of retained indicators after item refinement, and the complementary sequential analysis warrants cautious interpretation.

Practical implications: Organizations should prioritize QWL-related interventions, while avoiding the assumption that higher satisfaction or commitment automatically translate into better performance in unstable and segmented labor-market contexts.

Originality/value: The study contributes by showing how the relationships among QWL, JS, EC, and EP operate in a Mexican labor-market context characterized by instability, segmentation, and mobility. The findings suggest that widely expected attitude–performance relationships may not generalize uniformly across contexts, thereby identifying contextual conditions that help explain why some effects are supported while others are not.

Keywords: Quality of Work Life, Job Satisfaction, Employee Commitment, Employee Performance, White and Blue collar Employees.

Jel Codes: J28, J81, M54

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1. Introduction

Due to severe labor-market segmentation, strong wage pressures, low productivity, and a scarcity of high-quality jobs, the behavior of organizations toward their employees tends to be highly complex in developing economies. It is therefore challenging—from both a managerial and a theoretical standpoint—to design a successful set of practices that translates quality of work life (QWL) into higher job satisfaction (JS), stronger employee commitment (EC), and, ultimately, better employee performance (EP). The Mexican labor market provides a particularly relevant setting for examining these relationships, because it combines heterogeneous employment quality, job instability, worker mobility, and persistent work–life tensions. In such contexts, favorable work conditions may improve employees' evaluations of their jobs and organizations, but these attitudinal gains do not necessarily translate into stronger commitment or better performance in a linear manner. This makes Mexico not only an empirically relevant setting, but also a theoretically meaningful context for examining the boundary conditions of established relationships among QWL, JS, EC, and EP. Taken together, these facts underscore the relevance of understanding how QWL, JS, and EC connect to EP in a Latin American, multi-sector setting, particularly in labor markets where instability, mobility, and heterogeneous employment conditions may shape employee attitudes and behaviors in different ways.

There are multiple theoretical and empirical perspectives that explain the causal relations among these variables. The need-satisfaction and spillover model positions QWL as a primary factor in improvements in JS, which in turn facilitates better behaviors associated with EP and lays the groundwork for EC (Sirgy et al., 2001). The framework developed by Judge et al. (2001) examines the relationship between JS and EC and its impact on EP, while Blau's (1964) social exchange theory highlights the reciprocal ties between JS and EC. Although these perspectives help explain aspects of employee behavior in the workplace, they mainly explain bilateral associations and therefore offer only a partial understanding of the broader interplay among these constructs.

Recent evidence has deepened the linkages among QWL, JS, EC and EP. For example, Gazi, Yusof et al. (2024) have shown that JS in industrial workers is a robust antecedent of job behaviors tied to EP, while similar results were obtained by Pinheiro and Palma-Moreira (2025), who showed that JS has a positive effect on perceived EP. In turn, Gašić et al. (2024) demonstrated that EC functions as a mediating mechanism between flexible work arrangements and both innovative behavior and EP. Gazi, Al-Masud et al. (2024) have also identified core determinants that elevate QWL—work environment, culture, cooperation, compensation, resources, autonomy, job security, and JS—thus providing an updated map of levers related to QWL that organizations can act upon. Above all, it is important to emphasize the role that context plays in each of these relationships, which can result in heterogeneous findings (Lestari et al., 2023). It is therefore imperative to contextualize the findings within the specific characteristics of the labor market in question to determine how that market actually functions, thus moving beyond classical theoretical postulates and drawing on the experiences and practices most likely to benefit both organizations and workers.

Although the relationships among QWL, JS, EC, and EP have been widely examined in prior research, their explanatory logic should not be assumed to operate uniformly across contexts. Prior findings remain mixed, suggesting that labor-market conditions may shape the way these constructs relate to one another. The Mexican context thus offers a particularly relevant setting because it is characterized by job instability, labor-market segmentation, employee mobility, and heterogeneous employment quality, all of which may influence how favorable work conditions are translated into attitudinal and behavioral outcomes. Therefore, Mexico is not

merely the geographical setting of the study, but a substantive context that may help explain why some expected relationships are weakened or absent. Accordingly, the contribution of this study lies not in proposing entirely new links among QWL, JS, EC, and EP, but in showing how these relationships are contingent on context. By examining these associations in Baja California, Mexico, this study contributes to theory by identifying contextual boundary conditions that qualify the generalizability of established attitude–performance relationships and help explain why some expected effects are supported while others are not. Based on this perspective, this study examined the relationships among QWL, JS, EC, and EP in Baja California, Mexico, while also assessing the extent to which established attitude–performance relationships hold under specific labor-market conditions.

2. Literature Review

2.1. Quality of Work Life

The study of QWL is essential for understanding, in part, why some organizations are more productive and competitive than others. QWL is defined as the favorable conditions and environments in the workplace that support and promote employee satisfaction by offering rewards, job security, and opportunities for growth (Gayathiri et al., 2013). According to Lee et al. (2015), QWL involves meeting employees' needs in their work areas through the activities they perform in the organization. While employees have various needs, evidence suggests that key needs must be met to achieve good QWL, and these include economic, family, social, personal development, and health aspects (Sirgy et al., 2001).

The study of need satisfaction and its association with QWL originates in Maslow's (1943) theory of the hierarchy of needs and its subsequent updates. According to this theory, there are five types of needs that must be fulfilled to improve behavior through the motivation that satisfying these needs entails. The first are *physiological needs*, which refer to basic human needs such as eating, breathing, and drinking water. Next are *safety needs*, which are related to personal and family protection, housing, physical safety, job security, and income. The third category is *love and belonging*, including friendship, group belonging, affection, and companionship. *Esteem needs* involve the need for recognition, self-esteem, confidence, celebrating achievements, and valuing others. Lastly, *self-actualization needs* allow individuals to reach their potential or life goals. These are unique to each individual and represent a continuous process rather than a fixed list.

2.2. Job Satisfaction

JS is associated with social (individual or group, both inside and outside of work), psychological, and workplace conditions that enable employees to honestly express satisfaction with their work (Memon et al., 2023; Story & Castanheira, 2019; Tnay et al., 2013). JS is therefore affected by emotions and mood, which makes it unstable (Riyanto et al., 2021)—it can fluctuate between positive and negative throughout an employee's time in an organization. JS is divided into intrinsic and extrinsic forms of satisfaction (Ocen et al., 2017; Wernimont, 1966). Intrinsic JS refers to feelings and emotions about job-related aspects, such as personal achievement and self-fulfillment. Extrinsic JS, on the other hand, involves activities carried out to gain financial rewards and better working conditions. Both types must be present for employees to feel truly satisfied.

Organizations benefit from the presence of satisfied employees through their higher productivity and profitability (Earle, 2003), lower turnover and absenteeism rates, and greater customer satisfaction. Moreover, satisfied employees tend to be more cooperative, helpful, and work better as a team (Vizano et al., 2021). A positive work environment and sense of belonging also enhance organizational success (Earle, 2003). Factors like task assignment and proper supervision increase JS (Singhapakdi et al., 2015), while monotonous and poorly supervised tasks have the opposite effect. A dissatisfied employee can become the biggest threat to an organization (Nanjundeswaraswamy, 2023), ultimately contributing to high turnover rates (Dhamija et al., 2019; Kamal & Lukman, 2017).

2.3. Employee Commitment

According to Rajak and Pandey (2017), EC is the sense of responsibility an employee feels toward the organization's vision, mission, and goals. This commitment is related to factors such as JS, work–life balance, and motivation (Popoola & Fagbola, 2023). EC is built through an emotional bond with the company (Latifah et al., 2024), which leads employees to work harder toward organizational goals due to a strong sense of belonging

(Luthans et al., 2021). The present analysis of EC stems from Meyer and Allen's (1991) model of organizational commitment, which contains three components. The first is affective commitment, defined as the employee's emotional attachment, recognition, and involvement with the organization. The second is continuance commitment, which is based on the perceived costs of leaving the organization, such as loss of benefits or difficulty in finding a new job. The third is normative commitment, in which individuals feel they ought to remain in the organization, whether out of gratitude, loyalty, or a sense of duty. Thus, the various types of commitment result from organizational actions aimed at retaining, developing, and empowering employees, thus generating a long-term career plan within the company.

2.4. Employee Performance

JS, EC, and QWL are related to organizational competitiveness. These factors also have a positive effect on EP, which can be defined as the employee's ability to carry out assigned functions and achieve the organization's established objectives (Moonsri, 2018). Susanto et al. (2022) define EP as the result of both the quantity and quality of work performed in accordance with an employee's assigned responsibilities. According to Fung et al. (2017), EP can be divided into two dimensions: task performance, which measures the execution of tasks directly related to the employee's position, and contextual performance, which involves activities that support co-workers and the organization. Pulakos et al. (2000) add a third dimension: adaptive performance—that is, an employee's ability to adjust their behavior in response to changes in the work environment. These three types of EP are equally important, because they are not mutually exclusive, thus providing deeper insight into the EP and motivations of employees within the organization (Haryanto et al., 2022). Improving EP within organizations is essential, as evidence has shown that satisfied employees are associated with better financial performance (Tarigan et al., 2021) and represent a source of competitive advantage (Soraya et al., 2022).

3. Hypothesis Development

3.1. Relationship between QWL and JS

A broad body of research suggests that when organizations provide high QWL, employees feel secure, valued, and motivated, which translates into higher JS (Aruldoss et al., 2021; Danaeifar et al., 2016; Rai & Verma, 2023). From the perspective of need satisfaction and spillover, QWL satisfies relevant needs that spill over into positive work attitudes (Sirgy et al., 2001). Indeed, this relationship is applicable in different settings, including health care, pharmacy, and education, all of which have shown similar results (Isah et al., 2023; Rai, 2026; Salahat & Al-Hamdan, 2022). For example, in the hospitality and service sector, offering broad HR packages to employees and improving service quality reduces strain, increases motivation and happiness, and thus raises JS (Dorta-Afonso et al., 2021). It is important to mention that, in some studies, QWL has been analyzed in a disaggregated way through its dimensions, which allows a more specific understanding of its impact on JS (Dalvand et al., 2025). The following hypothesis is therefore proposed:

H1: There is a positive association between QWL and JS.

3.2. Relationship between QWL and EC

The literature suggests that high QWL sends workers a signal of organizational support, thereby generating "implicit norms" that translate into higher EC (Abebe & Assemie, 2023; Aminizadeh et al., 2022; Kesti et al., 2023). Evidence from the health sector has shown that improving QWL increases well-being and positive attitudes, as well as EC (Abdullah et al., 2021). In the hospitality sector, QWL was found not only to increase JS but also to have positive repercussions on EC (Dorta-Afonso et al., 2021). Evidence also indicates that, in higher education, a more favorable QWL raises EC and, in turn, improves EP (Singh, 2022). The following hypothesis is therefore proposed:

H2: There is a positive relationship between QWL and EC.

3.3. Relationship between QWL and EP

Similar to the previous evidence, high QWL provides resources that increase the motivation and energy available to perform work, which translates into better EP (Rai & Verma, 2023; Singh, 2022; Soraya et al., 2022). In the hospitality and health sectors, good QWL practices help increase EP (Abdullah et al., 2021; Dorta-Afonso et al.,

2021). Likewise, in other contexts, authors such as Rai and Verma (2023), Singh (2022), and Soraya et al. (2022) reported positive associations between QWL and EP, thus emphasizing that organizations that attend to their workers' needs maintain higher levels of EP. From a theoretical standpoint, Sirgy et al. (2001) explain that need satisfaction facilitates the spillover of resources provided by QWL into attitudes and behaviors that reflect better EP.

On the other hand, it is important to emphasize that the direct effect between QWL and EP is usually moderated when other variables are included in the analysis, because a relevant part of the impact of QWL travels indirectly through JS and/or EC (Dorta-Afonso et al., 2021; Judge et al., 2001; Story & Castanheira, 2019). Additionally, Abdullah et al. (2021) note that, in some contexts with high job demands, the capacity of QWL resources to transform directly into EP can be reduced, thus shifting the weight of the association toward other variables—such as JS and EC—that act indirectly. The following hypothesis is therefore proposed:

H3: QWL is positively related to EP.

3.4. Relationship between JS and EP

Evidence confirms that JS plays a key role in EP (Leung & Lin, 2022; Rai & Verma, 2023; Soomro & Shah, 2019; Story & Castanheira, 2019; Surodjo & Astuty, 2022). An analysis of the literature also suggests that the effects of JS on EP are positive but modest in meta-analyses, which points to the existence of boundary conditions and additional mechanisms in this relationship (Judge et al., 2001). Within the contexts analyzed in this study, Dorta-Afonso et al. (2021) found an association between JS and EP in the hospitality sector, whereas in the health sector, the relationship was more moderate, although still positive (Abdullah et al., 2021). Although prior research generally supports a positive relationship between JS and EP, the magnitude of this association appears to vary across contexts and may depend on additional mechanisms or boundary conditions. In line with this evidence, we propose:

H4: JS is positively related to EP.

3.5. Relationship between EC and EP

As with QWL and JS, various studies have suggested that EC is also positively related to better EP by activating identification, reciprocity, and persistence in tasks (Latifah et al., 2024; Singh, 2022; Soomro & Shah, 2019; Story & Castanheira, 2019). Sometimes, this relationship is only found in specific dimensions of EC. For instance, Abdullah et al. (2021) found that only affective and continuance commitment affected EP. In contrast, some studies have found no such relationship (Gawali et al., 2024; Hidayat & Sembiring, 2024; Ismansyah & Parwoto, 2024), which suggests that being committed to a job does not necessarily improve EP. One explanation for this is that employees may remain with a company due to a lack of better opportunities or personal circumstances, which means they are committed but not necessarily performing better. Accordingly, while a positive relationship is theoretically expected, prior evidence also suggests that this association may weaken in contexts where commitment is shaped more by necessity or limited alternatives than by active identification with the organization. The following hypothesis is therefore proposed:

H5: There is a positive association between EC and EP.

3.6. Relationship between JS and EC

From the perspective of social exchange theory, JS acts as a signal that the organization is meeting employees' expectations in terms of fairness and support; in return, individuals increase their commitment to the organization. This relationship has been widely studied in both directions (Dalkrani & Dimitriadis, 2018; Danaeifar et al., 2016; Ocen et al., 2017; Qureshi et al., 2019; Rai & Verma, 2023; Soomro & Shah, 2019; Sugiarto & Huruta, 2023; Zopiatis et al., 2014). Evidence has shown that JS has a positive effect on EC, and vice versa—EC increases JS. Employees who are satisfied, whether that satisfaction is due to salary, benefits, or professional development, feel more committed to the organization (Ashraf, 2020; Leung & Lin, 2022; Solihah et al., 2022), although the most common pattern in the empirical evidence reviewed is a relationship running from JS to EC.

Pepple and Ambilichu (2024) have shown that a performance appraisal perceived as fair increases JS, and JS in turn strengthens EC. In various contexts such as those mentioned above, all results indicate an association

between JS and EC in any direction, including in other sectors such as small and medium-sized information-technology enterprises (Valaei & Rezaei, 2016). However, in environments with high workload and pressure, the JS–EC effect tends to diminish if JS is not accompanied by substantial resources or support for employees (Dorta-Afonso et al., 2021). Thus, although the dominant expectation is that JS strengthens EC, this relationship may be less robust in labor contexts where satisfaction remains short-term or transactional in nature. Consequently, the following hypothesis is proposed:

H6: JS and EC are positively associated.

3.7. Mediation of EC between QWL and EP

Based on social exchange theory, high QWL is interpreted as the favorable treatment of employees that leads them to increase their EC and, in turn, functions as a bridge toward better EP (Nayak & Sahoo, 2015). This indirect relationship has been supported by important empirical evidence (Kusuma, 2021; Rahmawaty et al., 2022). The type of mediation varies across studies; for example, Lestari et al. (2023) found full mediation, whereas Abdullah et al. (2021) reported partial mediation. Although the contexts differ, the results are positive. The underlying causes of each type of mediation have not, however, been explained in depth. Story and Castanheira (2019), for example, found that affective commitment functions as a link between the relationship between of responsible practices (an element of QWL) and EP, with EC playing the mediating role. Consequently, the following hypothesis is formulated:

H7: EC mediates the relationship between QWL and EP.

3.8. Mediation of JS between QWL and EP

According to the need satisfaction and spillover model, Sirgy et al. (2001) argue that QWL operates through its benefits to increase employees' JS and, subsequently, such benefits translate into better EP. In strictly indirect terms, a causal effect of QWL on EP is channeled through JS. Although evidence of this pattern of variables is relatively recent (Jamilah et al., 2024; Novitasari, 2022; Rai & Verma, 2023; Riyadi et al., 2024), there is still not enough research to assert that this relationship is present across all sectors and contexts. In the hospitality sector, for example, Dorta-Afonso et al. (2021) estimated a partial mediation in the indirect QWL–JS–EP path, while other studies do not specify the type of mediation observed. Similarly, Judge et al. (2001) documented that the JS –EP association is positive but of moderate strength; therefore, even if the QWL–JS relationship is strong, the overall result of these paths yields an indirect effect that is different from zero but bounded, which translates into partial mediation. In light of these findings, it is important to understand the presence of a mediating effect of JS on the QWL–EP relationship. Thus, the following hypothesis is proposed:

H8: JS mediates the relationship between QWL and EP

3.9. Sequential Mediation of JS and EC between QWL and EP

High QWL may trigger a sequential attitudinal process through which employees first experience higher JS, then develop stronger EC, and ultimately exhibit better EP. Empirical evidence has consistently shown that QWL is positively associated with JS (Lee et al., 2015; Aruldoss et al., 2021), while satisfied employees tend to develop stronger organizational attachment and commitment (Bashir & Gani, 2020; Valaei & Rezaei, 2016). In turn, EC has been linked to higher levels of EP (Riketta, 2002; Leung & Lin, 2022). Beyond these pairwise associations, some studies have modeled broader attitudinal chains in which QWL, JS, and EC interact in mediated processes (Aruldoss et al., 2021; Rai & Verma, 2023), and others have shown that EC can mediate the relationship between QWL and EP (Singh, 2022), or that JS and EC can jointly mediate the effect of organizational antecedents on performance (Story & Castanheira, 2019). Taken together, this evidence suggests that QWL may influence EP not only directly, but also through a sequential process in which JS and EC operate in series. Consequently, the following hypothesis is proposed:

H9: JS and EC sequentially mediate the relationship between QWL and EP.

4. Methodology

4.1. Population and Sample

This study focused on white-collar and blue-collar workers in the commerce, services (excluding education and government), and manufacturing sectors in the Baja California region of Mexico. It is worth noting that the manufacturing industry alone represents 21% of the regional GDP and 38% of total employment. When the other sectors are included, the coverage reaches approximately 87.3% of the regional GDP and 90% of employment (Instituto Nacional de Estadística Geografía e Informática -INEGI-, 2021). A total population of 758,071 workers was identified, and a sample size of 600 workers was determined using a 95% confidence level and a 4% margin of error. The statistical sample was stratified by region and sector according to the worker population, so that the surveys collected would reflect as closely as possible each sector's contribution to the total number of workers in the region (Table 1).

	Region			Total
	Mexicali	**Tijuana**	**Zone Costa**	
Worker Population	241,990	451,017	65,064	758,071
Sector	**Sample by sector and region**			
Manufacturing	76	161	23	260
Commerce	42	66	9	117
Services	74	130	19	223
Total	192	357	51	600

Table 1. Sample Distribution

4.2. Variables and Instrument

A 43-item questionnaire was designed using a 5-point Likert scale, from 1 (*strongly disagree*) to 5 (*strongly agree*). Most items were taken from existing studies (Abdullah et al., 2021; Pawirosumarto et al., 2017; Rai & Verma, 2023; Sharma & Modgil, 2019; Sirgy et al., 2001) and adapted to the research context. Five items were also developed specifically for this study and validated by experts. All items underwent content and construct validity checks before being included in the questionnaire. The instrument was structured around the four study variables as follows:

- **Quality of Work Life** comprised 13 items divided into two dimensions. Six items addressed participation needs, which involve opportunities for professional development, autonomy, and decision-making. Seven items focused on belonging needs to assess recognition, interpersonal relationships, and the sense of belonging to the organization.
- **Job Satisfaction** comprised eight items (treated as a unidimensional construct) measuring the employee's satisfaction with the organization, working and economic conditions, workplace climate, and relationships.
- **Employee Commitment** comprised 12 items divided into three dimensions. Four items measured affective commitment (AC), referring to employee identification with organizational values and positive feelings toward the organization. Four items assessed normative commitment (NC) and measured loyalty, responsibility, and obligation to stay. The final four items assessed continuance commitment (CC) and addressed job alternatives and the difficulty of leaving due to lost benefits.
- **Employee Performance** comprised 10 items divided into three dimensions. Three items assessed task performance (TP), involving efficient task completion, planning, and results. Three items assessed contextual performance (CP); they measured support and cooperation with co-workers. Four items assessed adaptive performance (AP)—that is, adaptability to new tasks and working with others.

It is important to note that EC and EP were modeled as hierarchical constructs using a two-stage approach. In Stage 1, each construct was estimated through its three first-order dimensions (affective, normative, and continuance commitment; and task, contextual, and adaptive performance). In Stage 2, the resulting construct

scores were used as indicators of second-order emergent (Mode B) constructs for EC and EP in the structural model. In line with the emergent-variable logic, the second-order constructs were specified as formative (Mode B) composites to preserve the theoretical breadth of EC and EP and to avoid construct narrowing after item refinement. The formative indicators (dimension scores) were evaluated using (a) multicollinearity diagnostics (variance inflation factor, VIF) to ensure stable weight estimation, and (b) bootstrap-based weights as evidence of each dimension's unique contribution, complemented by indicator loadings to document that each dimension meaningfully represented the overall domain even when its incremental weight is small (Becker et al., 2012).

4.3. Instrument Application

Due to the lack of information on the number of white-collar and blue-collar workers in the region, an 80–20 distribution was established: 80% of respondents were operational workers and 20% administrative staff. This distribution was selected based on information provided by managers from various companies in the region, from which an average was obtained, because there have been no studies formally certifying the proportion by type of worker. Surveys were distributed proportionally across economic sectors, with the services and manufacturing sectors being the most represented. Surveys were administered in person across the region, either inside or outside workplaces, over the course of two months in 2024. This approach minimized non-sampling error and allowed interviewers to address respondents' questions directly. The response rate was around 70%, so data collection continued until a total of 600 completed questionnaires was reached. It is important to note that, from the outset, the purpose of the survey was explained to participants, and they were informed about the confidentiality of personal information in accordance with personal data protection laws.

4.4. Common Method Bias

To ensure the statistical validity of the collected data, common method bias (CMB) (Hair et al., 2017) was addressed. CMB occurs when a single method of data collection (e.g., using only Likert scales) inflates correlations between variables. To test for this, Harman's single-factor test was applied; this exploratory factor analysis determines whether a single factor accounts for most of the variance in the data. The maximum acceptable threshold is 50% (Tehseen et al., 2017). The test showed that a single factor explained only 28.093% of the variance, which suggests that CMB was unlikely. The VIF was also analyzed; this indicator helps detect multicollinearity. In this case, all item VIF values ranged between 1.5600 and 2.6222, which are below the threshold of 3.3 (Kock, 2015), thus suggesting low multicollinearity and providing no strong indication of CMB.

5. Analysis of the Results

Regarding the sociodemographic characteristics of the sample, 56% were men. The main educational level was a bachelor's degree (51%), followed by upper-secondary education (36%). Salary levels were low, as half of the sample reported a monthly income between 10,000 and 15,000 Mexican pesos, which indicates earnings were low despite workers having an adequate educational level; an additional 21% reported income between 16,000 and 20,000 pesos. These figures are significant because two-thirds of the workers earn up to three minimum wages, which, according to national standards, places all of them officially in the lower class. In terms of job tenure, 46% had between 2 and 5 years of seniority, and 28% had up to 2 years, which illustrates the high mobility of workers between jobs in the region. Finally, the main age ranges—each representing 33%—were 18–25 and 26–35 years, which indicates that the population is predominantly composed of young adults. Results by sector did not show significant variation.

After running the reflective model for QWL and JS, only those items whose factor loadings exceeded the threshold of 0.700 established by Carmines and Zeller (1979) were selected, ranging from 0.7042 to 0.7825 (Table 2). Out of 21 items, 8 met the required threshold and were included in the final model, distributed as follows: 5 items for QWL, 3 from the "belonging needs" dimension and 2 from "participation needs"; and 3 items for JS. It is important to mention that item elimination was carefully reviewed, and the discarded items were considered either redundant or poorly suited to the characteristics of the context (Gómez-López et al.,

2020). However, given the multidimensional nature of QWL, the reduction in retained indicators may also have narrowed the empirical coverage of the construct. The QWL results should therefore be interpreted as reflecting the facets retained in the final model—especially belonging and participation needs—rather than the full theoretical domain originally considered.

Indicator	QWL	JS	EC	EP
QWL1	0.7463			
QWL2	0.7042			
QWL3	0.7361			
QWL4	0.7587			
QWL5	0.7602			
JS1		0.7459		
JS2		0.7825		
JS3		0.7393		
AC			0.9398	
NC			0.8997	
CC			0.5822	
AP				0.7920
CP				0.9314
TP				0.5489

Table 2. Factor Loadings

Regarding reflective measurement quality, internal consistency and convergent validity were satisfactory for both variables obtained values above .700 (Table 3), according to the parameters established by Nunnally and Bernstein (1994). The same applies to the Cronbach's alpha indicator (Dijkstra & Henseler, 2015). Additionally, we also assessed the average variance extracted (AVE), which is a measure of the amount of variance captured by a construct relative to the amount of variance due to measurement error, with a threshold that should be above 0.500 (Carmines & Zeller, 1979). According to the data presented, all variables are above the established threshold.

Construct	Cronbach's alpha(α)	Dijkstra Henseler's rho (ρA)	Jöreskog's rho (ρc)	AVE
JS	0.7991	0.8007	0.8001	0.5717
QWL	0.8594	0.8596	0.8591	0.5497

Table 3. Convergent Validity

We also measured the heterotrait-monotrait ratio of correlations (HTMT), which assesses discriminant validity between reflective indicators of the same variable and about others. For this validity to be achieved, the value of correlation should not exceed 0.900 (Henseler, 2017). As can be seen in Table 4, correlation fall within the estimated range, so the model demonstrates adequate discriminant validity.

Construct	JS	QWL
JS		0.7558
QWL		

Table 4. Discriminant Validity: Heterotrait-Monotrait Ratio of Correlations

After estimating the measurement model for reflective constructs, EC and EP were specified as hierarchical emergent constructs (Mode B) using a two-stage approach: the construct scores of their three first-order dimensions were used as indicators in Stage 2 (commitment: AC, NC, and CC; performance: AP, CP, and TP). For

formative measurement, we report VIF, weights, and loadings for the dimension scores (Table 5). We interpret the weights as incremental contributions conditional on the other dimensions, whereas loadings capture the extent to which each dimension score is aligned with the overall construct. Therefore, dimensions with low or near-zero weights were retained when they showed acceptable loadings and low VIF values, because their exclusion would reduce content validity and the conceptual coverage of the higher-order construct (Hair et al., 2017).

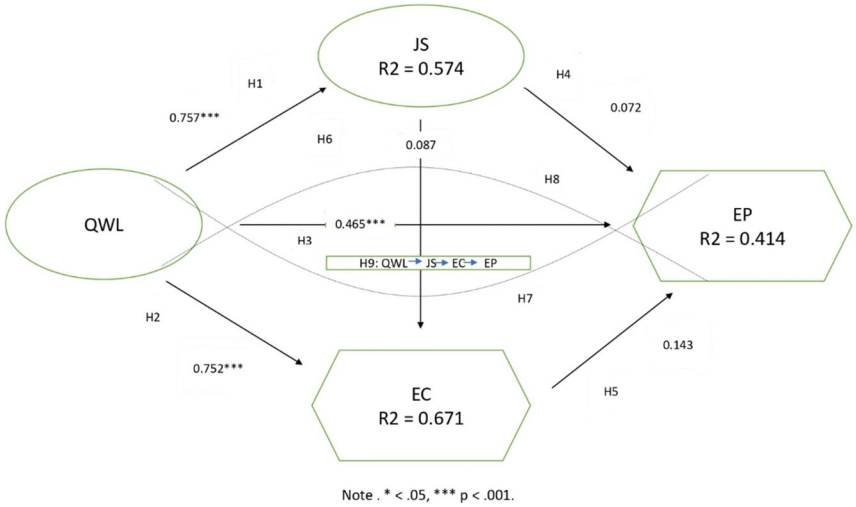
Multicollinearity among indicators was low for the formative constructs. For EC, VIF values ranged from 1.2800 to 2.2371 and weights were AC = 0.5714, NC = 0.4143, and CC = 0.1550 (loadings: 0.9398, 0.8997, 0.5822, respectively). For EP, VIF values ranged from 1.4542 to 1.6041 and weights were CP = 0.7134, AP = 0.4264, and TP = −0.0039 (loadings: 0.9314, 0.7920, and 0.5489, respectively). Given the meaningful loading and low VIF of TP, this dimension was retained to preserve construct coverage. Notably, a near-zero (or negative) formative weight does not imply that the dimension is conceptually unimportant; rather, it indicates limited additional explanatory value once the other dimensions are already included. In our case, TP still showed an adequate loading (>0.50) and low VIF (1.49), which supports its retention as a theoretically essential component of overall performance. The same logic applies to CC: despite a smaller weight, its loading (>0.58) and low VIF support keeping it to preserve the full three-component commitment domain (Hair et al., 2017).

Indicator	Loadings	Weights	VIF
AC	0.9398	0.5714	2.2016
NC	0.8997	0.4143	2.2371
CC	0.5822	0.155	1.28
AP	0.792	0.4264	1.6041
CP	0.9314	0.7134	1.4542
TP	0.5489	-0.0039	1.4889

Table 5. Formative measurement model indicators

Structural model analysis was then conducted to examine the relationships between all variables/constructs (Figure 1). The bootstrapping procedure was applied to obtain inferential statistics for all model parameters. This procedure requires the extraction of several non-parametric samples, so 5,000 subsamples were initially generated (Henseler & Fassott, 2009). The standardized root mean square residual (SRMR) was used also as a global fit indicator, with the conventional .08 cutoff (Hu & Bentler, 1999). This approach enabled the assessment of correlation levels and the testing of the proposed hypotheses (see Table 6). The first hypothesis, which posited a positive association between QWL and JS, yielded significant positive results ($\beta = 0.757$, $p < .000$), thus supporting the hypothesis and confirming a strong and statistically significant association between these variables. Similarly, the second hypothesis, proposing a positive relationship between QWL and EC, was also supported with significant values ($\beta = 0.751$, $p < .000$), which indicates that employees with higher QWL tend to exhibit greater EC.

Regarding the third hypothesis, which stated that QWL is positively related to EP, the results were positive but less robust than for the previous two hypotheses ($\beta = 0.464$, $p = .000$). This suggests that QWL exerts a moderate positive effect on EP within organizations. The fourth hypothesis, which proposed that JS is positively related to EP, was not supported, ($\beta = 0.0721$, $p = .362$). The parameters indicate that the p-value is above 0.05, with an extremely low beta value. The fifth hypothesis, which posited a positive association between EC and EP, was also not supported ($\beta = 0.142$, $p = .0646$). Both the effect size and the significance level failed to meet the criteria for acceptance. Similarly, the sixth hypothesis, suggesting a positive association between JS and EC, was also rejected due to nonsignificant results ($\beta = 0.086$, $p = .1703$).



Note: Solid lines represent direct effects; dashed lines indicate hypothesized indirect paths. *p<.05, *** p<.001.

Figure 1. Structural Model Results and hypothesized indirect effects

	HYPOTHESIS	Path Coefficient	STDEV	T Statistics	P-Values	Results
H1	QWL → JS	0.7574	0.0287	26.3896	0.000***	Supported
H2	QWL → EC	0.7515	0.0551	13.6455	0.000***	Supported
H3	QWL → EP	0.4645	0.1047	4.4372	0.000***	Supported
H4	JS → EP	0.0721	0.0791	0.9114	0.3621	Not supported
H5	EC → EP	0.1427	0.0772	1.8481	0.0646	Not supported
H6	JS → EC	0.0868	0.0633	1.3715	0.1703	Not supported

p = 0.001***

Table 6. Structural Equation Modeling Path Analysis—Direct Relationships for Hypothesis Testing

In summary, the analysis confirmed significant positive relationships between QWL and both JS and EC, as well as a moderate positive relationship between QWL and EP. However, the expected direct effects of JS on EP, EC on EP, and JS on EC were not supported by the data.

To further examine the indirect relationships proposed in the model, an additional bootstrapping analysis was conducted for the mediation hypotheses (Table 7). The results show that the indirect effect of QWL on EP through EC was not significant (H7), and the indirect effect of QWL on EP through JS was also not significant (H8). These findings indicate that neither EC nor JS, when considered as isolated mediating mechanisms, explained the relationship between QWL and EP in the primary structural model.

	HYPOTHESIS	Path Coefficient	STDEV	T Statistics	P-Values	Results
H7	QWL → EC → EP	0.0657	0.0474	1.3862	0.1657	Not supported
H8	QWL → JS → EP	0.0124	0.0123	1.0045	0.3152	Not supported
H9	QWL → JS → EC → EP	0.2869	0.0275	10.4460	0.0000	Supported only in complementary model

P = 0.001. Note: H9 was estimated in a complementary re-specified sequential mediation model design to test the full indirect chain QWL → JS → EC → EP. Therefore, this result should be interpreted as supplementary evidence of a possible sequential mechanism, rather than as direct confirmation within the primary structural model.

Table 7. Structural Equation Modeling Mediation Path Analysis—Hypothesis Testing

In response to the possibility that the effect of QWL on EP may operate through a more complex attitudinal sequence, a complementary re-specified mediation model was estimated to test the full indirect path QWL → JS → EC → EP. This analysis provided evidence consistent with H9, as the bootstrapped sequential indirect effect

was positive and statistically significant. However, this result should be interpreted with caution because it comes from a complementary model rather than from the primary structural specification. H9 is therefore treated as supplementary evidence of a possible sequential mechanism, not as direct confirmation that each individual path in the original model operates independently.

At first glance, this finding may appear counterintuitive because the direct paths JS → EC and EC → EP were not statistically significant in the primary model. Nevertheless, the two results are not necessarily contradictory. In mediation analysis, an indirect effect can be statistically significant even when one or more individual paths are weak or non-significant, particularly when the variables operate jointly as part of a broader causal chain rather than as isolated predictors (Hayes, 2018). In this study, the non-significant direct paths suggest that JS and EC do not function as strong standalone predictors in the primary model. By contrast, the significant sequential indirect effect suggests that they may still contribute as part of a cumulative attitudinal process initiated by QWL.

The predictive capability of the model was, however, considered optimal, as at least two latent variables exhibited significant R^2 values (Hair et al., 2017). An R^2 of 0.5736 was estimated for the JS construct, 0.6711 for EC, and 0.4138 for EP. Finally, the SRMR was 0.0355, thus falling well within the maximum threshold of 0.080 (Hu & Bentler, 1999).

6. Discussion

The results show that QWL is strongly associated with JS and EC, and moderately associated with EP. This pattern suggests that organizations seeking to create a more favorable work environment should prioritize practices that enhance the quality of employees' work life, because this construct appears to be the most consistent antecedent in the model. These findings are broadly consistent with prior research in different settings (Aruldoss et al., 2021; Rai & Verma, 2023; Singh, 2022; Soraya et al., 2022), although the QWL–EP relationship was comparatively weaker in the present study. This weaker association should be interpreted cautiously, because EP was measured through self-reports rather than objective indicators or third-party evaluations. The observed relationship is therefore better understood as an association with self-perceived employee performance rather than with externally validated performance outcomes.

Within the QWL construct, the sense of belonging was the dimension that contributed the most to its measurement. Belonging needs are considered more relevant than participation needs because belonging constitutes a basic human need and a prerequisite for genuine participation to occur (Baumeister & Leary, 1995). Item refinement for QWL was based on both statistical and conceptual criteria. Items with insufficient loadings were removed only after checking whether they were redundant or had limited fit with the context studied. For this reason, the final QWL specification should be read as a more focused representation of the construct, rather than as full coverage of its original theoretical domain. In practice, the retained indicators place greater emphasis on belonging and participation needs, so the observed effects seem to reflect more strongly relational aspects of work life quality, such as recognition, interpersonal ties, and opportunities for participation.

On the other hand, no positive association was found between JS and EP. The reviewed literature shows mixed findings: some authors argue that this relationship is positive, although contingent on context (Leung & Lin, 2022; Soomro & Shah, 2019; Story & Castanheira, 2019). In contrast, Sinniah et al. (2022) reported a positive but nonsignificant association, while Ardiyansah and Elmi (2025) found a negative and nonsignificant association. There is even evidence suggesting that performance predicts JS, but not the other way around (Christen et al., 2006). Based on a meta-analysis, Bowling (2007) reported that the JS–EP relationship is explained by other variables, and there is insufficient evidence to make a strong claim about this relationship. This finding supports the view that, in highly mobile and segmented labor markets, satisfaction may reflect short-term evaluations of working conditions without necessarily developing into longer-term attachment to the organization or translating into performance differences. This interpretation is also compatible with Locke's value-percept perspective, which suggests that job satisfaction reflects the extent to which work fulfills personally important values (Locke, 1976). However, such favorable evaluations do not necessarily imply higher performance, because the

relationship between satisfaction and performance is not always strong or direct and may depend on contextual conditions (Bowling, 2007; Judge et al., 2001).

Contextual and adaptive performance showed the largest incremental contributions (weights) in the formative second-order specification of EP, whereas TP exhibited a near-zero weight. Importantly, under the emergent-variable logic, weights reflect conditional incremental contributions given the presence of the other dimensions and do not determine the conceptual relevance of a dimension. TP was retained because it showed an adequate loading (>0.50) and low multicollinearity (VIF=1.49), which indicates that it still meaningfully represents the overall performance domain. Excluding it would reduce content validity and narrow the theoretical coverage of employee performance.

The hypothesis stating a positive association between EC and EP was rejected, which is consistent with previous findings (Gawali et al., 2024; Hidayat & Sembiring, 2024; Ismansyah & Parwoto, 2024). An employee may exhibit EC for various reasons—loyalty, gratitude, development opportunities, or fear of losing the job due to lack of alternatives—but that does not necessarily translate into improved EP. This interpretation is theoretically consistent with the multidimensional nature of commitment, because not all forms of commitment are equally effective in enhancing performance. In particular, continuance-based attachment may reflect the cost of leaving more than active identification with organizational goals, which helps explain why commitment does not necessarily translate into better performance in every context.

The three dimensions (affective, normative, and continuance) were retained in the formative second-order specification of EC to preserve construct breadth. Under the emergent-variable logic, weights capture conditional incremental contributions given the other dimensions, whereas loadings reflect the extent to which each dimension score aligns with the overall commitment domain. Although continuance commitment showed a smaller weight, its loading was acceptable (>0.58) and multicollinearity was low (VIF=1.28), therefore, it was decided to retain it in the analysis.

Another noteworthy finding is the lack of relationship between JS and EC, which contradicts both current theory and much empirical evidence. However, limited literature does support this result (Gangai & Agrawal, 2015; Pehlivanoğlu et al., 2022), and this finding might also be better understood by considering the specific characteristics of the Mexican labor context. Employment relationships in Mexico are characterized by relatively high job insecurity, limited opportunities for mobility and promotion, and the prevalence of temporary jobs. Employees may thus experience positive levels of JS regarding certain aspects of their work, without this necessarily translating into an affective or normative bond with the organization. Another explanation relates to the dynamics of the productive sector analyzed, in which, given that this Mexican region borders the United States and offers abundant job opportunities, jobs are perceived as more temporary and workers are constantly seeking new opportunities, so EC to the organization does not develop.

The mediation results were more limited than initially expected. In the primary structural model, the indirect effects of QWL on EP through EC and through JS were not significant. This means that neither satisfaction nor commitment, when examined separately, acted as a clear mechanism linking work-life conditions with perceived performance in the context analyzed. In practical terms, better work-life conditions did not translate automatically into performance through either attitudinal variable on its own. However, the complementary analysis of the sequential path QWL → JS → EC → EP offers a more nuanced reading of the results. Although JS and EC were not strong standalone predictors in the primary model, they may still be relevant when considered as part of a broader attitudinal process initiated by QWL. In this interpretation, favorable work-life conditions first shape employees' evaluation of their job; this evaluation may then contribute, even gradually or weakly, to a stronger sense of attachment, which can then be associated with perceived performance.

This helps explain why the sequential indirect effect can be meaningful even when some individual direct paths in the primary model are not statistically significant. Rather than suggesting a contradiction, the result indicates that the effect of QWL on EP may not depend on one isolated attitudinal mechanism, but on the combined sequence through which employees interpret their work conditions, develop attitudes toward the organization, and eventually report their performance. This interpretation should nevertheless be made with caution, because the sequential path was tested in a complementary re-specified model.

This finding is also consistent with prior empirical research showing that satisfaction and commitment may operate jointly in broader performance-related mechanisms. For example, Hendri (2019) found that JS and organizational commitment mediated the relationship between organizational learning and EP, while Agustianingsih and Maharani (2024) reported that JS played a mediating role in the relationship between organizational commitment and EP. Although these studies differ from the present research in their antecedents and model specifications, they support the broader idea that attitudinal variables may contribute to performance through combined or sequential processes rather than only through isolated direct effects.

This reading is particularly relevant in the context of Baja California. The results suggest that satisfaction and commitment may not operate as automatic or independent drivers of performance in segmented and mobile labor markets. Instead, they appear to be context-dependent links within a longer process that begins with employees' perception of their QWL. The complementary sequential mediation result should be understood as suggestive evidence of a possible cumulative attitudinal mechanism, rather than as definitive confirmation of a universal mediation pattern.

7. Conclusions

This study examined the relationships among QWL, JS, EC, and EP in Baja California, Mexico. The results showed that QWL was positively associated with JS, EC, and EP, whereas the expected direct effects of JS on EP, JS on EC, and EC on EP were not supported. These findings suggest that relationships commonly reported in the literature may not operate in the same way under labor-market conditions marked by instability, segmentation, mobility, and heterogeneous employment quality. Rather than pointing to entirely new relationships, the study shows that the explanatory logic linking these variables appears to depend on context. The study thus contributes by showing that the strength and direction of attitude–performance relationships may depend on the stability and quality of the labor-market context in which they are examined.

Although the simple indirect effects through JS and EC were not supported in the original structural model, the additional analysis suggested a significant sequential indirect effect through JS and EC. This result indicates that the influence of QWL on EP may unfold through a more interdependent attitudinal process in which satisfaction precedes commitment, and commitment subsequently relates to performance. From a practical perspective, the findings suggest that organizations should prioritize improvements in QWL, while also avoiding the assumption that higher satisfaction or commitment will automatically translate into better performance, especially in more unstable or transactional employment contexts. Overall, the study contributes by identifying contextual boundary conditions that qualify the generalizability of established relationships among QWL, JS, EC, and EP.

7.1. Theoretical Implications

The main theoretical contribution of this study lies in contextualizing relationships that have been widely examined in prior research. Rather than assuming that QWL, JS, EC, and EP operate similarly across settings, the findings show that in a labor-market context like that of Baja California, Mexico—characterized by instability, segmentation, and employee mobility—some expected attitude–performance relationships are weakened or absent. In this setting, QWL remained a consistent antecedent of JS, EC, and perceived EP, which suggests that favorable work conditions continue to play a central role in shaping employee attitudes and behavioral outcomes, even when other expected relationships do not emerge in the usual way.

The findings thus remain consistent with the need satisfaction and spillover model, because favorable work conditions were positively associated with JS, EC, and perceived EP. This supports the idea that when employees perceive better work-life conditions, relevant needs are more likely to be satisfied, and more positive job-related attitudes can emerge. However, the results also indicate that the translation of these favorable attitudes into performance is not automatic. The absence of significant direct relationships from JS to EP, from JS to EC, and from EC to EP suggests that attitudinal states may be more weakly coupled with performance outcomes in labor contexts where employment relationships are more transactional, mobile, or unstable.

A second theoretical implication is that the mediating role of attitudinal variables appears to be more complex than initially expected. While the simple indirect effects of QWL on EP through JS and through EC were not

supported in the original structural model, the additional analysis showed a significant sequential indirect effect through JS and EC. This pattern suggests that attitudinal transmission may occur not through isolated mechanisms, but through a more interdependent process in which favorable work conditions first enhance satisfaction, then strengthen commitment, and only subsequently relate to higher performance. The findings are thus compatible with social exchange theory, but they also qualify it by showing that reciprocity may unfold in sequential rather than immediate ways.

Overall, the study contributes theoretically by identifying contextual boundary conditions that help explain why some widely expected relationships are supported while others are weakened or absent. Ultimately, the results suggest that models linking QWL, JS, EC, and EP should be interpreted with greater sensitivity to labor-market conditions, especially in developing-economy settings where job insecurity, heterogeneous employment quality, and high worker mobility may alter the way positive work experiences are transformed into attitudinal and behavioral outcomes.

7.2. Practical Implications

From a managerial perspective, the results indicate that organizations in the sectors analyzed should prioritize concrete actions to improve QWL if they wish to enhance employee attitudes and performance. This includes investing in participation and development opportunities, recognition, interpersonal relationships, reduced job precariousness, and better work–life balance. However, the findings also suggest that, in labor contexts marked by instability, mobility, and more transactional employment relationships, improvements in job satisfaction or commitment should not be assumed to translate automatically into better performance. In such settings, QWL-oriented practices may be necessary but not sufficient unless they are accompanied by broader organizational conditions that promote stability, clearer career prospects, and stronger reasons for employees to remain psychologically and behaviorally engaged.

7.3. Study Limitations

This study has several limitations that should be considered when interpreting the results. First, it focused on a regional rather than national geographic scope. The findings therefore cannot be extrapolated to all countries and must be contextualized. Second, only workers were considered, not employers; consequently, the results reflect only one perspective. Third, the study was cross-sectional, which implies analyzing the phenomenon at a single point in time.

Fourth, EP was measured through self-reports rather than supervisor evaluations or objective organizational indicators. Although self-reported performance is frequently used in organizational research to capture employees' perceived work behaviors, this approach is more problematic when performance is the ultimate dependent variable in the model. Self-report bias may affect the magnitude of the observed associations and may partially account for weak or non-significant relationships involving employee attitudes. The findings therefore should be interpreted as reflecting perceived rather than externally validated employee performance.

Fifth, EC and EP were modeled as emergent higher-order constructs, so the relative contribution of their dimensions should be interpreted with caution. A lower weight for a given dimension does not necessarily indicate lower conceptual importance, but rather a smaller incremental contribution within the composite in this specific sample. Sixth, while the additional analysis supported a significant sequential indirect effect of QWL on EP through JS and EC, this result emerged from a re-specified complementary model. This sequential mechanism should be interpreted as exploratory and should be confirmed in future studies using a pre-specified structural model. Future research should replicate this sequential mechanism in other sectors, regions, and labor-market contexts to examine its generalizability.

Finally, an additional limitation concerns the reduced empirical coverage of QWL after item refinement. Although the retained indicators showed acceptable measurement properties, the final specification captured a more delimited set of QWL facets than the broader theoretical domain initially proposed. Consequently, findings involving QWL should be interpreted cautiously and not as a full representation of the construct.

7.4. Future Research Directions

We identified several directions for future research based on these limitations. First, the geographic and sectoral scope of the research could be expanded by including the public/government and education sectors, as well as extending the study to the national level. Second, employers' perspectives could be included, which would generate relevant information to match with the data obtained from workers. Third, qualitative methods could be incorporated to achieve a mixed-methods design. Finally, longitudinal studies could be conducted, which would make it possible to examine how these variables evolve over time and how workers' behavior changes when they switch jobs.

Declaration of Conflicting Interests

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Authors' contributions

Manuel Alejandro Ibarra-Cisneros: Formal analysis, methodology, writing.

Héctor Fernando Ruíz-Valenzuela: Conceptualization, validation.

María del Rosario Demuner-Flores: Data processing, supervision.

Eric Israel Ríos-Nequis: Data processing, resources.

Data availability

Data available upon request

Use of Artificial Intelligence

A was used only for check if the references were in APA v.7 format.

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