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Who Experiences Better Workplace Relationships? Marital Status, Job Designation, and Researchers' Relational Experiences

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ABSTRACT

This study examined differences in the quality of work relationships among researchers working in an agricultural research institution in Punjab, Pakistan. Drawing on a sociological perspective of workplace relationships as socially and organizationally embedded experiences, the study investigated whether researchers' perceptions of their relationships with immediate supervisors and coworkers varied according to marital status and job designation. Data were collected from 329 researchers using a stratified sampling technique. Quality of work relationships was measured through three items assessing satisfaction with relationships with immediate supervisors and coworkers and feelings of being valued in interactions with supervisors. The measure demonstrated satisfactory psychometric properties, including strong factor loadings, reliability, and acceptable variance inflation factors. Descriptive statistics, Welch's ANOVA, and Games–Howell post hoc tests were used for analysis. Results showed significant differences in quality of work relationships across marital-status categories. Single researchers reported significantly higher scores than both married and divorced researchers. Significant differences were also found across job-designation categories. Scientific officers reported significantly higher quality of work relationships than senior scientists and principal scientists. The findings demonstrate that workplace relational experiences are differentiated by researchers' social and organizational positions.

Keywords: *quality of work relationships, social and organizational positions, Welch's ANOVA*

INTRODUCTION

Workplaces are not only the context for economic production, but they are also social spaces for building social relations, negotiating expectations, experiencing recognition, and developing meaning for everyday work (Allen et al., 2000; Dulebohn et al., 2012). In agricultural research institutions, where research is a relational activity, the quality of these relationships in the workplace can be of particular importance to researchers (Benson & Brown, 2007; Blackler, 1995; Carolan, 2006; Cortada, 2009). Researchers rely on their supervisors for guidance, evaluation, resources, recognition, and job opportunities; and interactions with colleagues and team members help to share knowledge, work together, solve problems, and provide support (Davenport et al., 2002; Douthwaite & Gummert, 2010; Erickson et al., 2018). Thus, researchers' experiences of relational aspects with their immediate supervisor and colleagues are an important part of their overall experience of organizational life.

Quality of work relationships is the degree to which individuals feel positive, respectful, supportive and affirmed in their relationships with important others in their work environment (Caillier, 2017; Carmeli et al., 2009; Carmeli & Gittell, 2009). For the purposes of the present study, the construct is limited to satisfaction with the relationship with immediate boss, satisfaction with relationships with coworkers'/team members, and feeling valued during interactions with immediate boss. These dimensions represent a relational and an evaluative experience of social aspects in the workplace. Even though a researcher has the necessary resources and qualifications, he or she can still have a negative experience in the workplace due to lack of caring, rejection, disrespect, and lack of rapport with supervisors and/or colleagues. On the other hand, supportive and affirming relationships can help build a sense of belonging and promote collaboration and commitment among employees (Cropanzano & Mitchell, 2005; Dulebohn et al., 2012; Edmondson, 1999).

The problem is particularly salient in research institutions in agriculture, where researchers are subject to formal organizational structures and at the same time engage in collaborative scientific endeavors (Batool et al., 2023; Shahzad et al., 2023; Shahzad et al., 2024). Researchers can have varying professional authority, responsibility and organizational status. These differences may affect how someone is included or excluded from decision making, how they interact with more senior people, opportunities for recognition and how they communicate on a day-to-day basis (Eisenberger et al., 2002; Kahn, 1990; Karasek, 1979). Therefore, it is not possible to assume that the nature of workplace relationships is similar for employees in different social and organizational roles.

Another possible source of differentiation is marital status. Marital status is usually viewed as a demographic characteristic, but it can also be linked to distinctions in social roles, responsibilities, social networks, expectations and how work and non-work roles are negotiated (Colquitt et al., 2001; Dulebohn et al., 2012; Kossek et al., 2011). These variations can affect employee level interaction, and interpersonal support expectations, in the workplace. Especially, those in stressful working roles can find the relationship between work and family responsibilities to be different based on their marital status (Colquitt et al., 2001; Michel et al., 2011). Thus, analysis of quality of work relationships by marital-status groups can be informative about social differences in work relationships. Working relationships in the job can also be affected by job designation (Ruppanner & Huffman, 2020; Schneider, 1987; Schneider et al., 2013; Settoon et al., 1996). There are variations in authority, responsibility, professional status, decision-making authority and access to institutional resources associated with organizational roles. Thus, there can be different interactional patterns of interactions with the supervisor and colleagues in a research organization. This 'hierarchy' may affect both others' attitudes towards them and their own feelings and judgements about their relationships at work (Schneider, 1987; Shore & Wayne, 1993; Wayne et al., 1997).

Despite the importance of workplace relationships, relatively limited attention has been given to whether researchers' relational experiences vary systematically across demographic and occupational categories within agricultural research institutions. The present study addresses this issue by examining quality of work relationships researchers working in an agricultural research institution in Punjab. Accordingly, the study advances two hypotheses: H1: There are statistically significant differences in researchers' quality of work relationships across marital-status categories. H2: There are statistically significant differences in researchers' quality of work relationships across job-designation categories.

LITERATURE REVIEW

Employees' social experience in the workplace is a basic part of their work relationship (Caillier, 2017; Carmeli et al., 2009; Carmeli & Gittell, 2009). There are frequent interactions between employees and supervisors, coworkers, team members that impact perceptions of support, recognition, fairness,

belonging, and inclusion to the organization (Gupta, 2015; Josef Gellert & Schalk, 2011). A positive work relationship is thus not only a lack of interpersonal conflict, but it also includes positive assessments of interaction, interpersonal regard and that one is treated as a valued member of the workplace (Sloan, 2017; Song, 2005). Relationships can be particularly important for a researcher, as science often involves collaboration, exchange, mentoring, feedback, and coordination among organizational levels (Szostek, 2020, 2021). The immediate supervisor plays a special role in employees' workplace relationships. Supervisors can be the organization's voice in their daily work activities and impact on the availability of information, feedback, recognition, development opportunities, and work tools. The positive relationship with their supervisor can lead employees to evaluate the organizational environment positively (Sias, 2005; Simon et al., 2010; Tran et al., 2018). On the other hand, strained relationships with supervisors can lead to dissatisfaction and reduce a person's feeling of belonging to an organization. The present study thus includes satisfaction with relationships with immediate boss as well as feeling valued by the immediate boss in the relationship.

Another aspect of relational quality at work is the relationship quality among the coworkers and team members (Schneider et al., 2013; Settoon et al., 1996; Shore & Wayne, 1993). Research work is becoming more and more collaborative in contemporary research environments. Researchers share knowledge, extend technical assistance, work as teams to address problems. Cohesive interaction among members of the team can be promoted through positive relationships with co-workers, while negative relationships can foster interpersonal barriers and hinder teamwork (Rhoades & Eisenberger, 2002; Schneider, 1987). This is because satisfaction with relationships with coworkers and team members is also an important indicator of researchers' overall relational experiences. Additionally, Marital status may also potentially distinguish the workplace experience of employees as changes in family roles and responsibilities could affect how individuals interact with others and work. Employees' expectations for social support, work–family boundaries, availability to participate in organizational activities, and the type or amount of support they are looking for from colleagues and supervisors can vary between married, single, and divorced employees (Ruppanner & Huffman, 2020; Settoon et al., 1996; Siegrist, 1996). These differences do not mean that the quality of the marriage relationship is a prerequisite for the quality of the relationship in any specific context, but that marital status can combine with social roles and work conditions in varying ways that give rise to different workplace experiences.

These intersections might be especially relevant for researchers in challenging workplaces. Family responsibilities and professional responsibilities can co-exist and the level of social support, recognition and flexibility in workplace relationships can differ. Moreover, the workplace cultures might have varying expectations for workers based on their family situation. Thus, when analyzing marital status categories, researchers can gain empirical insight into whether their evaluations of their relationships at work vary across different marital status categories or whether they are similar. Another theoretically relevant basis for differences in workplace relations is organisational hierarchy (Eisenberger et al., 2002; Graen & Uhl-Bien, 1995; Hobfoll, 1989). The word job implies the formal role of an employee in an organizational hierarchy, and can carry a range of implications including authority, professional recognition, autonomy, access to information, and opportunities in decision making. Depending on the research institution, Principal Scientists might have different patterns of interaction with their supervisor and colleagues than Senior Scientists, who might have different patterns than Scientific Officers.

For higher status jobs, there could be more influence and autonomy, which can allow employees to have more control over their interpersonal and organizational surroundings (Allen et al., 2000; Allen et al., 2009; Bakker & Demerouti, 2007). Meanwhile, higher level roles can come with higher levels of managerial and professional responsibilities, leading to other types of relationship. Staff at more junior levels may have more reliance on their senior colleagues for evaluation, mentoring, career development and opportunity. The differences in structure indicate that workplace relationships may be perceived

systemically differently, depending on the job designation (Settoon et al., 1996; Shore & Wayne, 1993). Thus, a substantive argument exists for studying marital status and job designation as separate factors rather than simply control variables as well. Marital status may be related to varying family and interpersonal situations and is a social position characteristic, while job designation is an organizational position characteristic related to hierarchy and professional authority. Where quality of work relationships are socially and organizationally normed, it is easy to understand that researchers in different roles might have different perceptions of their relationships. This reasoning suggests the following hypotheses:

H1: There are statistically significant differences in researchers' quality of work relationships across marital-status categories.

H2: There are statistically significant differences in researchers' quality of work relationships across job-designation categories.

MATERIAL AND METHODS

The study employed a quantitative, cross-sectional research design to examine differences in researchers' quality of work relationships across marital-status and job-designation categories. Data were collected from 329 researchers working in an agricultural research institution in Punjab. A stratified sampling technique was employed to ensure representation of researchers from relevant organizational strata. The resulting sample provided the basis for examining whether quality of work relationships varied systematically according to researchers' social and occupational positions. Moreover, quality of work relationships was operationalized using three items capturing employees' satisfaction with and perceived value in their relationships with significant workplace others (Nair & Vohra, 2010). Respondents were asked to indicate their level of agreement with the following statements:

1. I am highly satisfied in my relationship with my immediate boss.
2. I am highly satisfied in my relationship with my coworkers'/team members.
3. I feel valued in my interactions with my immediate boss.

The first two items capture satisfaction with relationships at two central levels of workplace interaction—supervisory and coworker/team relationships—while the third captures the perceived interpersonal value and recognition experienced in supervisor interactions. The items were combined to represent researchers' overall quality of work relationships, with higher scores indicating more positive evaluations of workplace relationships.

The analysis proceeded in three stages. First, the psychometric properties of the measure were assessed to establish the reliability and adequacy of the scale. Descriptive statistics were then examined to summarize the distribution and general level of quality of work relationships among the respondents. Finally, Welch's one-way analysis of variance (ANOVA) was employed to test whether quality of work relationships differed significantly across marital-status and job-designation categories. Welch ANOVA was selected because it provides a robust test of mean differences when the assumption of equal variances across groups may not be satisfied (Welch, 1951). Where the omnibus test indicated statistically significant group differences, the Games–Howell post hoc test was used to identify the specific pairs of groups that differed. Games–Howell is appropriate for unequal variances and unequal group sizes and therefore complements the Welch ANOVA in the present research design.

RESULTS AND DISCUSSION

Measurement Properties of Quality of Work Relationships

Table 1
Items, Loadings, Reliability and Collinearity of Quality of Work Relationship Scale

Items	λ	Communality	Alpha	CR	VIF
QWR			.862	.860	
QWR1	.899	.808			2.611
QWR2	.916	.840			2.862
QWR3	.842	.708			1.817

Note: CR = composite reliability, VIF = variance inflation factors, λ = loadings

Prior to examining the psychometric properties, the Quality of Work Relationships (QWR) scale was tested for its appropriateness as a measure. As shown in Table 1, all three items loaded well, ranging from .842 to .916. Specifically, QWR1 loaded at .899, QWR2 at .916, and QWR3 at .842. The communalities for the corresponding items were .808, .840, and .708, respectively, which represent a high amount of the variance explained by the underlying construct for each item. Scale showed a good internal consistency with Cronbach's alpha of .860 and a composite reliability of .862. Both are above the satisfactory limits of reliability, and this indicates that the three items are measuring the same underlying construct. The variance inflation factors also were quite low and in the range of 1.817 to 2.862, well below the acceptable threshold of 5.00. Therefore, multicollinearity was not an issue with the indicators. The results indicated that the overall results of the QWR were reliable, valid, and had an acceptable level of collinearity.

Descriptive Statistics

Table 2
Descriptive Statistics of Quality of Work Relations Across Various marital Statuses and Job Designations

Variables	N	Mean	S. D	S. E	95% CI for Mean		Min	Max
					Lower Bound	Upper Bound		
Marital Status								
Single	60	11.67	1.937	.250	11.17	12.17	8	15
Married	240	9.03	2.657	.172	8.69	9.36	3	15
Divorced	29	8.93	2.939	.546	7.81	10.05	3	13
Job Designation								
Principal Scientist	14	7.50	2.245	.600	6.20	8.80	3	12
Senior Scientist	154	7.86	2.358	.190	7.48	8.23	3	13
Scientific Officer	161	11.24	1.968	.155	10.94	11.55	6	15

Table 2 presents the descriptive statistics for quality of work relationships across marital-status and job-designation categories. Across marital-status groups, single researchers (n = 60) reported the highest level of quality of work relationships (*M* = 11.67, *SD* = 1.94), followed by married researchers (n = 240) (*M* = 9.03, *SD* = 2.66) and divorced researchers (n = 29) (*M* = 8.93, *SD* = 2.94). The 95% confidence interval for the mean was [11.17, 12.17] for single researchers, [8.69, 9.36] for married researchers, and [7.81, 10.05] for divorced researchers. The descriptive pattern indicates a substantially higher reported quality of work relationships among single researchers compared with both married and divorced researchers. Similarly, for job designation, Scientific Officers (n = 161) reported the highest quality of work

relationships (M = 11.24, SD = 1.97), whereas Senior Scientists (n = 154) reported a lower level (M = 7.86, SD = 2.36). Principal Scientists (n = 14) reported the lowest mean (M = 7.50, SD = 2.25). The corresponding 95% confidence intervals were [10.94, 11.55] for Scientific Officers, [7.48, 8.23] for Senior Scientists, and [6.20, 8.80] for Principal Scientists. These descriptive results suggest considerable variation in researchers' perceptions of their work relationships across job-designation categories, particularly between Scientific Officers and the two more senior designation groups.

Table 3

Welch's ANOVA for Quality of Work Relationships by Marital Status and Job Designation

Independent variable	Welch's *F*	df1	df2	*p*
Marital status	38.94	2	66.31	< .001
Job designation	100.97	2	35.70	< .001

Differences in Quality of Work Relationships by Marital Status

Table 4

Games–Howell Post Hoc Comparisons of Quality of Work Relationships by Marital Status and Job Designations

Comparison	Mean Difference	SE	95% CI	*p*
Marital Status				
Single – Married	2.64	.30	[1.92, 3.36]	< .001
Single – Divorced	2.74	.60	[1.27, 4.20]	< .001
Married – Divorced	.09	.57	[−1.31, 1.50]	.985
Job Designation				
Principal Scientist – Senior Scientist	−.36	.63	[−1.98, 1.27]	.839
Principal Scientist – Scientific Officer	−3.74	.62	[−5.35, −2.13]	< .001
Senior Scientist – Scientific Officer	−3.39	.25	[−3.96, −2.81]	< .001

Welch's ANOVA was conducted to determine whether the observed differences in quality of work relationships across marital-status groups were statistically significant. The analysis revealed a statistically significant effect of marital status, F Welch (2, 66.31) = 38.94, p < .001. Thus, the null hypothesis of equal mean quality of work relationships across the three marital-status categories was rejected. This finding indicates that researchers' quality of work relationships differed significantly according to marital status and provides support for H1. Additionally, to determine which marital-status groups differed from one another, Games–Howell post hoc comparisons were conducted. As shown in Table 4, single researchers reported significantly higher quality of work relationships than married researchers, with a mean difference of 2.64, SE = .30, 95% CI [1.92, 3.36], p < .001. Single researchers also reported significantly higher quality of work relationships than divorced researchers, with a mean difference of 2.74, SE = .60, 95% CI [1.27, 4.20], p < .001.

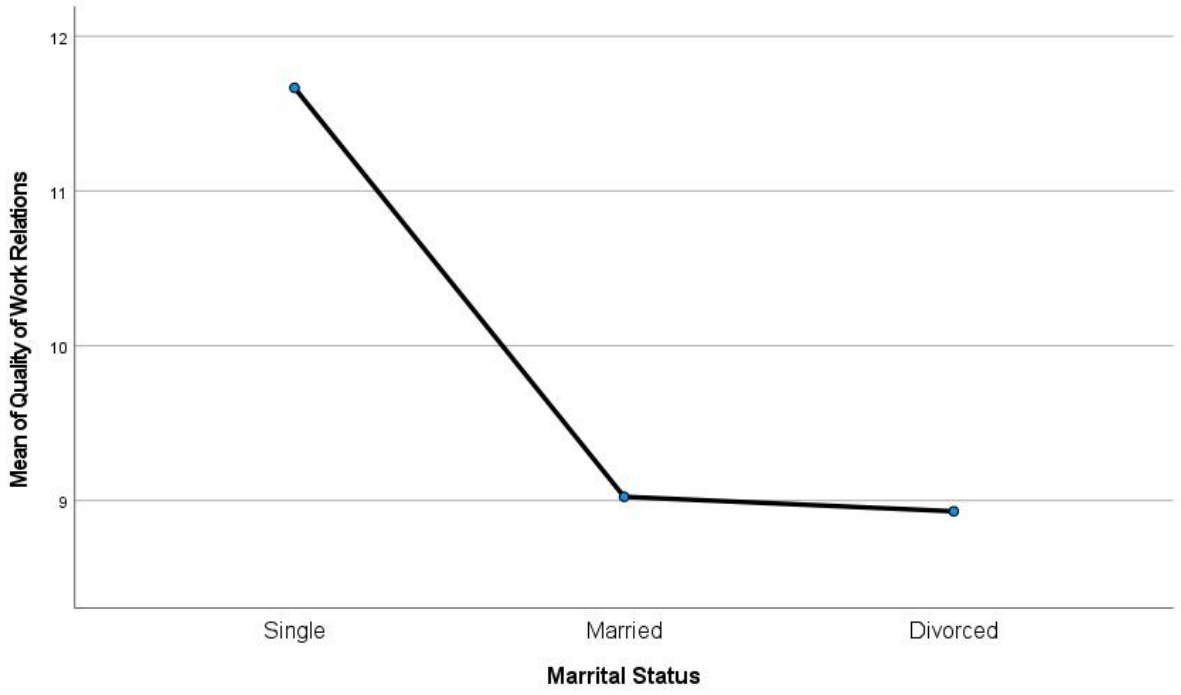


Figure 1: Visual Summary of Quality of Work Relationships Based on Marital Status

In contrast, the difference between married and divorced researchers was not statistically significant, mean difference = .09, *SE* = .57, 95% CI [−1.31, 1.50], *p* = .985. Therefore, the significant overall marital-status effect was primarily attributable to the substantially higher scores reported by single researchers, whereas married and divorced researchers did not differ significantly from each other.

Differences in Quality of Work Relationships by Job Designation

Welch's ANOVA also indicated a statistically significant difference in quality of work relationships across job-designation categories, *F*Welch (2, 35.70) = 100.97, *p* < .001. This result indicates that researchers' perceptions of their workplace relationships varied significantly according to job designation and provides support for H2. Moreover, Games–Howell post hoc comparisons showed that Principal Scientists and Senior Scientists did not differ significantly in their reported quality of work relationships, mean difference = −.36, *SE* = .63, 95% CI [−1.98, 1.27], *p* = .839. However, Principal Scientists reported significantly lower quality of work relationships than Scientific Officers, mean difference = −3.74, *SE* = .62, 95% CI [−5.35, −2.13], *p* < .001. Similarly, Senior Scientists reported significantly lower quality of work relationships than Scientific Officers, mean difference = −3.39, *SE* = .25, 95% CI [−3.96, −2.81], *p* < .001. Thus, the significant overall job-designation effect was driven primarily by the substantially higher quality-of-work-relationship scores among Scientific Officers compared with both Principal Scientists and Senior Scientists.

Summary of Hypothesis Testing

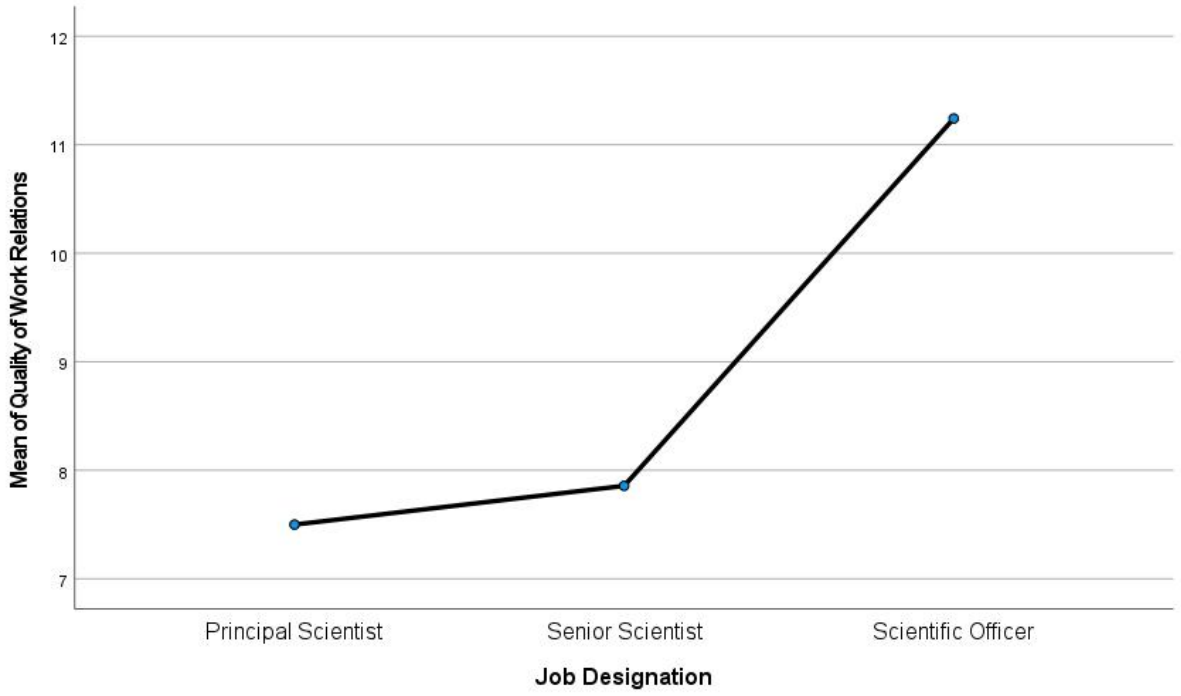


Figure 2: Visual Summary of Quality of Work Relationships Based on Job Designation

Overall, both hypotheses were supported. H1 was supported, as Welch's ANOVA demonstrated statistically significant differences in quality of work relationships across marital-status categories, F Welch (2, 66.31) = 38.94, $p < .001$. Games–Howell tests showed that single researchers reported significantly higher quality of work relationships than both married and divorced researchers, whereas married and divorced researchers did not differ significantly. Similarly, H2 was also supported, with a statistically significant difference across job-designation categories, FWelch (2, 35.70) = 100.97, $p < .001$. Post hoc comparisons indicated that Scientific Officers reported significantly higher quality of work relationships than both Senior Scientists and Principal Scientists, while the latter two groups did not differ significantly. In a nutshell, the findings suggest that quality of work relationships is not uniformly experienced by researchers in the agricultural research institution. Rather, relational experiences vary according to both researchers' marital status and their position within the organizational hierarchy. Notably, the largest descriptive contrasts were between single and married/divorced researchers and between Scientific Officers and the two higher-ranking designation groups.

The study results show that the quality of work relationships of researchers is not experienced equally across the social and organizational dimensions. The strong differences in scores between single and married and divorced researchers indicate that the social and family situation of researchers is likely to affect experiences and evaluations of workplace interactions, but cannot be said to cause them. However, the lack of difference between married and divorced scientists also suggests that marital status is not a clear linear predictor of relationship quality. However, job designation resulted in a greater differentiation, with Scientific Officers reporting significantly higher quality of work relationships than Senior Scientists and Principal Scientists, who did not differ significantly. This pattern shows that the relationship between formal organizational position and positive relational experiences is not always a linear one. Senior researchers may find that their working lives are more stressful from a performance perspective, have

more administrative duties, more expectations, or more complicated supervisory relationships, which affect how they interpret experiences of working life. On the other hand, Scientific Officers can have more integrated or supportive interactions as a group, or day-to-day with their colleagues. The findings as a whole support a sociological perspective on workplace relationships, as both social positions and organizational structures are integral to the relationships of employees.

LIMITATIONS OF THE STUDY

There are several constraints that need to be taken into account when interpreting the findings. The study used a cross-sectional design, which does not allow for conclusions about causal relationships between marital status, job designation and quality of work relationships. Second, the data was gathered from researchers within an agricultural research institution in the province of Punjab, so the results might not be immediately applicable to other provinces, different institutions, other occupational sectors, or other organizational cultures. Third, the study was also self-reported, and social desirability, as well as what the respondents experienced in their jobs at the time of the study, and their sensitivity around their negative views on their supervisor and colleagues, may have affected their answers. Fourth, the quality-of-work-relationships construct was measured with just three items, despite showing good reliability and satisfactory psychometric properties. Lastly, other potentially important factors not included in the present analysis were not included: age, organizational tenure, gender, workload, leadership style, organizational support, and institutional climate.

SUGGESTIONS FOR FURTHER STUDY AND PRACTICE

Future research should focus on the quality of work relationships, with larger and more diverse samples from various agricultural research institutions and other organizations with a strong research component. Researchers may find that workplace relationships shift throughout the various stages of marriage, career, and organization through use of longitudinal studies. Further research should also include other potentially influential factors, including leadership style, perceived OS, OJ, workload, career advancement, psychological safety, and work–family dynamics, to help account for the higher or lower ratings of relationships within the groups. Qualitative interviews might also help to shed light on why the Scientific Officers' scores are so high and relatively low scores among the senior researchers. From a practical standpoint, institutions should improve communication, mentoring, recognition, team building and respectful interpersonal relationships between supervisors and researchers at every level of the organization. Care should be taken to grasp the relationship dynamics of senior researchers, not just that they are better than in other roles.

CONCLUSION

The findings of the study are that quality of work relationships within the categories of marital status and job designation is quite varied. The researchers who were single reported significantly better workplace relationships than married and divorced researchers, while there was no significant difference between married and divorced researchers. Likewise, Scientific Officers also reported significantly higher rating on the quality of work relationships compared with the Principal and Senior Scientists. The results suggest that researchers' social and organizational status impacts on their workplace relationships. The findings suggest that the focus on a generic notion of employee experience needs to be supplemented with the understanding that researchers at different stages of social and organizational structure may have different experiences of the same institution. Organizations should thus take the development of supportive, respectful and inclusive workplace relationships as a priority.

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