Finding Fulfillment: An Examination of the Fulfillment of Maslow's Needs Among Traditional, Remote, and Hybrid-Setting Employees

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The traditional office paradigm has shifted in the wake of COVID-19 and the Great Resignation. Workplace flexibility is no longer an employee benefit but rather an expectation. To explore the effects of this change, this study applied Maslow's Hierarchy of Needs theory to elements of organizational job design. Specifically, this study sought to determine if traditional, remote, or hybrid work settings influence employees' fulfillment of Maslow's five fundamental human needs. As a result, this study found that hybrid-setting employees have statistically greater levels of satisfaction with physiological needs, safety-security needs, belongingness needs, esteem needs, and self-actualization needs than when compared to traditional and remote-setting employees. These results affirm the benefits of hybrid-setting employment, likely attributed to heightened workplace flexibility compounded with the maintenance of in-person collaboration and social contact.

Keywords: Maslow's Hierarchy of Needs, work-setting, traditional-setting, remote-setting, hybrid-setting, employee fulfillment

INTRODUCTION

The phenomenon dubbed "The Great Resignation" signals a shift in employee sentiment, compelling organizations to reevaluate their role in contributing to employees' pursuit of personal and professional fulfillment (Barrero et al., 2021; Cohen, 2021; De Smet et al., 2021; Fuller & Kerr, 2022; Parker & Horowitz, 2022; Stahl, 2022). As such, the work setting, whether traditional, remote, or hybrid, is now being examined as a determinant of employee engagement and well-being (Juchnowicz & Kinowska, 2021; Kniffin et al., 2021; Wontorczyk & Rożnowski, 2022). While the concept of work setting has evolved over time, the Covid-19 pandemic catalyzed the evolution of modern work setting dynamics as nearly 33% of United States private sector employers increased remote or hybrid work for some or all employees (Dalton & Groen, 2022). Despite the decline of the pandemic, employees' desire for remote and hybrid work has not diminished, with many voicing reservations about reverting to the conventional office structure (Barrero et al., 2021; Fuller & Kerr, 2022; Parker et al., 2020; Parker & Horowitz, 2022). These demands have challenged the widely accepted definition of work setting, thus leaving an open debate on how different work settings impact employee fulfillment. As such, this study aimed to identify if the work setting impacts the attainment of U.S. employees' various humanistic needs, as dictated by the theoretical assumptions of

Maslow's Hierarchy of Needs. Specifically, the research investigated whether full-time U.S. employees working in traditional, remote, or hybrid settings exhibit statistically significant differences in their levels of fulfillment of physiological needs, safety needs, love and belonging needs, esteem needs, and self-actualization needs.

LITERATURE REVIEW

The United States' Work Setting

The United States work setting of the early 20th century was largely traditional initially designed to be an extension of the manufacturing floor. This design was utilized to promote employee visibility, whereby management could easily oversee the team's productivity (Friedman, 2014). In the mid-20th century, Robert Propst, an employee of furniture manufacturer, Herman Miller, performed extensive research about employee efficiency, communication, and well-being within the workplace. Propst found that the current office design was not conducive to productivity, talent development, or employee vitality (Friedman, 2014). These findings initiated the development of the modern-day cubical. The cubicle gained popularity as privacy, autonomy, and creativity became highly valued (Saval, 2014). During the later portions of the 20th century, the traditional office space became more prominent as mid-level employees and managers became more active in organizational decision-making (Saval, 2014).

Workplace technology also advanced within the 20th century and became far more prevalent in the 1990s due to Tim Berners-Lee's creation of the World Wide Web (Choudhury, 2014). Further, the development of the Internet provided access to new and existing information while also bolstering the communication capabilities of employees and businesses alike (Cohen-Almagor, 2013). The 21st century introduced additional advancements such as laptop computers, smartphones, cloud computing, and the collection, analysis, and application of big data. Further, the pursuance of digitization took old paper forms, filing cabinets, tapes, and hard media and converted them to digital copies that could be accessed and edited from anywhere (Cijan et al., 2019; Morris & Rohs, 2021). This combination of digitization perpetuated the notion of accessibility, thus providing the opportunity of work-setting flexibility (Ahlers, 2016).

Today, the three commonly recognized work settings include traditional, remote, and hybrid. In a traditional work setting, an employee travels daily to a designated employer-owned-and-operated location (Surma et al., 2021). Adversely, a remote work setting is characterized by an employee working full-time outside of the organization's physical boundaries (Sewell & Taskin, 2015; Surma et al., 2021; Wontorczyk & Rożnowski, 2022). A hybrid work setting involves a compilation of the traditional and remote work setting environments (Surma et al., 2021; Wontorczyk & Rożnowski, 2022). Employees who utilize the hybrid environment work at both an employer-owned physical location, as well as another location(s) that is selected by the employee (Iqbal et al., 2021; Surma et al., 2021; Wontorczyk & Rożnowski, 2022).

Covid-19 and the Workplace

Because of the contagiousness of the Covid-19 virus, the United States' Centers for Disease Control and Prevention issued national guidance concerning limiting public social interactions to slow the spread of the virus (Centers for Disease Control and Prevention, 2023). Further, efforts instituted by state and local governments included non-essential business closures or the ceasing of in-person business operations (Carnevale & Hatak, 2020; Song et al., 2021). To comply with such policies, many businesses quickly adopted work-from-home policies to restrict in-person contact while maintaining operations and personnel (Dalton & Groen, 2022). This rapid dynamic shift challenged organizational capacity by presenting both internal and external hardships relating to leadership, performance management, job nature, infrastructure, intersectoral collaboration, health and safety management, and other important work setting attributes (Caligiuri et al., 2020; Hamouche, 2021; Tajvar et al., 2022).

The implementation of flexible work arrangements additionally brought forth challenges relating to the expeditious attainment, disbursement, and secure use of the necessary technologies required of hybrid and remote work (Hamouche, 2021; Herath & Herath, 2020; Kodama, 2020). Fortunately, the technologies needed to facilitate out-of-office work existed, despite the abrupt need for holistic implementation in the

wake of unforeseen circumstances. While the severity of the Covid-19 pandemic continues to subside, the event undoubtedly amplified the availability and acceptability of non-traditional work settings, thus bolstering employee demand for hybrid and remote work opportunities (Barrero et al., 2021; Fuller & Kerr, 2022; Parker et al., 2020).

The Great Resignation

The Great Resignation is a historic labor market trend in which millions of Americans quit their jobs following the first year of the COVID-19 pandemic (Cohen, 2021). In 2020, the total number of United States employee resignations equated to 38.5 million, a decrease from the recorded number of 42.2 million quits in 2019 (U.S. Bureau of Labor Statistics, 2020; U.S. Bureau of Labor Statistics, 2021). The recorded decrease in quit levels in 2020 can be attributed to public uncertainty at the pandemic's beginning (Cohen, 2021). A similar decrease in employee quit levels was observed following the Great Recession of 2008 (U.S. Bureau of Labor Statistics, 2009). However, in 2021, the recorded number of resignations suddenly surpassed pre-pandemic years due to changing employee behaviors and feelings toward traditional work environments and settings (Cohen, 2021). The Great Resignation culminated in the voluntary departure of 47.8 million United States employees in 2021, and 50.5 million United States employees in 2022 (U.S. Bureau of Labor Statistics, 2022; U.S. Bureau of Labor Statistics, 2023).

The Great Resignation is cited as being a result of employee burnout, psychological stress, anxiety, and depression (Stahl, 2022). Fuller and Kerr (2022) argue the causes of the Great Resignation as retirement, relocation, reconsideration, reshuffling, and reluctance. Reconsideration occurred due to peoples' changing perspectives relating to the role of work in their lives, a notion associated with pandemic-related epiphanies (Cohen, 2021). An affirmatory Gartner report found that the pandemic has caused seven out of 10 employees to rethink the overall role of work in their lives (Gartner, 2022). Cech and Hiltner (2022) determined that the employment priorities of U.S. college-educated workers who experienced pandemic-related job instability have shifted, finding that meaningful and fulfilling work takes precedence over job stability and salary. Conversely, reshuffling, or employment upgrading, occurred due to a surplus of employment opportunities within the United States job market following the decline of the pandemic (Fuller & Kerr, 2022). Many employees resigned from their current positions to pursue improved opportunities within the labor market, whether in the same or a different sector (Parker & Horowitz, 2022).

In support of Fuller and Kerr's (2022) notion of reluctance, Barrero et al. (2021) found that upwards of 40% of surveyed employees stated that they would begin searching for alternative employment opportunities or quit immediately if they were required to return to a traditional office setting on a full-time basis following the Covid-19 pandemic. Wigert and Agrawal (2022) found that only six percent of a nationally representative sample of remote-capable United States employees were interested in returning to a full-time traditional work setting. In contrast, 60% of study participants declared interest in a long-term hybrid setting. The remaining 34% of respondents stated their preference for fully remote work. Similarly, a 2020 Pew Research Study conducted among United States adults found that 54% of respondents would prefer to work in fully remote or hybrid positions after the COVID-19 outbreak (Parker et al., 2020). This study also found that 38% of workers transitioning from a traditional work setting to a remote one during the pandemic have a heightened ability to balance work with familial responsibilities. However, 65% of these remote, or mostly remote, employees cited a consequent lack of connection to their colleagues following the change in work setting (Parker, et al., 2020). A 2022 Gallup study reiterated these findings in concluding that the top five reasons for employees' partiality towards a hybrid work setting include avoiding commute time, an increase in overall wellbeing, work-life balance, the option to work in-person with coworkers, and heightened feelings of productivity (Wigert, 2022).

Attrition, as witnessed within the Great Resignation, is the rate at which employees leave an organization over a specified period. There is considerable cost associated with high attrition rates. Before the Covid-19 pandemic, the cost of employee attrition in the United States was over $1 trillion per year (McFeely & Wigert, 2019). The cost for an organization to replace an individual employee is estimated at one-and-a-half to two times the employee's salary (McFeely & Wigert, 2019). To lower the attrition rate, organizations must continually familiarize themselves with the wants and needs of employees to cultivate

employee effectiveness and engagement (Knox, 2022). A De Smet, Dowling, Mugayar-Baldocchi, and Schaninger attrition-oriented study also examined United States employees' reasoning for the Great Resignation (2021). The study found that 51% of the surveyed population cited a lack of workplace belonging as a significant reason for employee attrition (De Smet et al., 2021).

Further reasons for attrition were attributed to feelings of not being valued by managers and the organization (De Smet et al., 2021). As such, employers face new challenges in effectively managing employee demands about flexible work arrangements, connectivity, and unity (De Smet et al., 2021). Specifically, employers are tasked with cultivating a sense of employee belongingness while simultaneously responding to demands related to non-traditional work settings, which decrease face-to-face interaction.

Maslow's Hierarchy of Needs

According to Abraham Maslow, humanistic needs are somewhat standard among all individuals (Maslow, 1943). The term "need" is the requirement of something necessary, or important to, a person's existence or well-being (Hull, 1951; Seward & Seward, 1937; Spence, 1956; Taormina & Gao, 2013). Maslow's Theory of Human Motivation, more commonly referred to as the Hierarchy of Needs, defines five basic needs that motivate human behavior (1943). These include physiological, safety, love and belongingness, esteem, and self-actualization needs (Maslow, 1943). Maslow (1943) contends that attaining the five needs is typically accomplished in a successive, or hierarchical, order as the gratification of one need simultaneously leads to the emergence of a new set of needs.

Physiological needs are the most basic of human needs and are related to biological drives such as food, water, sleep, sex, physical health, and suitable climate (Maslow, 1943). Safety needs consist of being protected from various sorts of danger, such as war, disease, injury, natural catastrophes, crime, social disorganization, and chronically bad situations (Maslow, 1943). Further, safety needs encompass the need for a sense of security, which also extends to financial stability, obtainment of insurance, and continued employment (Maslow, 1943). Next, love and belonginess needs require the receipt and dispersion of affection and the presence of platonic, familial, or romantic relationships (Maslow, 1943). Following the attainment of love and belongingness, the need for esteem arises. Esteem needs are characterized as a person's self-worth and confidence in their abilities, as well as their respectability and notoriety in the eyes of others (Maslow, 1943). Finally, following the achievement of the first four needs, the desire for self-actualization and personal fulfillment materializes (Maslow, 1943). The concept of self-actualization describes the maximum fulfillment of one's capacity, potential, and purpose (Maslow, 1962).

Elements of the Theory of Human Motivation have been examined within the context of the organization due to the practical assumption of the ability of the workplace to aid in the attainment of Maslow's needs. In considering the most basic of needs, professional employment aids in the attainment of both physiological and safety needs due to the presence of an established source of income and resulting financial security. Continuous income provides stability in securing necessities such as food, water, and shelter (Seubert et al., 2021; Maslow, 1943). The workplace may also impact the fulfillment of human safety needs due to the ongoing need of a safe and secure environment (Maslow 1943; Seubert et al., 2021).

Maslow (1998) discusses the impact of the organization on employees' higher order needs. Research suggests that the organization may impact the fulfillment of love and belongingness needs due to the occurrence of habitual social interactions and the resulting formation of interpersonal relationships and bonds (Barrick et al., 2013; Baumeister & Leary, 1995; Cockshaw et al., 2014; Jena & Pradhan, 2018; Karkuzashvili, (2021); Leary & Cox, 2008; & Maslow, 1943). Barrick et al. (2013) discuss the desire for social communion as an intrinsic driver of workplace purposefulness. Jena & Pradhan (2018) contend that humans spend most of their waking hours within their place of employment, and, therefore, most employees desire to maintain meaningful working relationships that aid in a strong sense of belonging. Furthermore, Breetzke and Wild (2022) affirm the importance of professional connectivity, as increases in social interactions in the workplace lead to improved mental health and overall well-being. This association is reiterated by Stephen (2018), who asserts the importance of professional relationships and social support in the context of entrepreneurs' mental health and well-being.

Maslow (1943) identifies both self-esteem and esteem from others as essential human needs. Self-esteem reflects one's intrinsic desire for achievement, independence, competence, and confidence. Esteem from others manifests extrinsically through respectability, prestigiousness, attention, or positive reputation (Maslow, 1943). Both classifications of esteem needs may be affected within the workplace through individual and team achievements, professional recognition, workplace interactions and relationships, and organizational structure and culture (Baumeister, 1999; Gómez-Jorge & Díaz-Garrido, 2023; Jerome, 2013; Korman, 1970; McAllister & Bigley, 2002; Pierce et al., 1989; Tharenou, 1979). Pierce et al. (1989) define the concept of organization-based self-esteem as an employee's self-perceived value, which stems from their participation in an organization and indicates whether they feel acknowledged and competent within that setting. Pierce and Gardner (2004) determined that work environments that promote employee autonomy and trust strengthen organization-based self-esteem. Employee self-esteem may also be enhanced through positive messages conveyed by meaningful individuals such as mentors or managers (Pierce & Gardner, 2004). Further, experiences of professional success will aid in beliefs of personal efficacy and adequacy, thus resulting in confidence and improved self-worth (Pierce & Gardner, 2004).

The achievement of self-actualization implies that one has met their full potential and is pursuing what they are uniquely fitted for (Maslow 1943). Given the central role of work in modern culture, Maslow (1998) recognized the ability of the organization to influence individual self-actualization. He states,

> Work can be psychotherapeutic or psychagogic (making well people grow toward self-actualization). This of course is a circular relationship to some extent, i.e., given fairly o.k. people to begin with, in a fairly good organization, then work tends to improve the people, (p. 1).

The managerial philosophy of eupsychian, or enlightened, management emphasizes employees' well-being, fair treatment, and holistic development to create a positive and harmonious workplace environment (Maslow, 1965; Maslow, 1998). Such an environment is crucial to both the organization and the employee, as encouraging employee self-actualization leads to improved outcomes for both parties (Payne, 2000). Fernando and Chowdhury (2015) discuss the organization's ability to influence self-actualization due to individuals' pursuance and completion of purposeful work that aligns with self-interests and perceived reasons for being. Similarly, Moore and Casper (2006) describe self-actualization as a dimensional component of workplace spirituality whereby the work environment fosters a sense of purpose, community, and ethical alignment, thereby enabling employees to achieve their full potential and experience personal growth. El Bedawy et al. (2017) contend that an organization whose ideals, goals, and purposes relate to those of employees provides a stronger source of motivation when compared to the proposition of financial or material rewards.

While traditional work environments foster direct employee communications through continuous in-person attendance, hybrid, and remote settings provide a spectrum of in-person engagement, ranging from a blended approach to an exclusive reliance on virtual communications and interactions. Providing that hybrid and remote work setting are becoming ever more prevalent within the United States and beyond, the present study aimed to identify the impact of work setting on U.S. employees' humanistic needs as dictated by the theoretical assumptions found within Maslow's Hierarchy of Needs. Specifically, this research sought to examine if full-time U.S. employees working within traditional, hybrid, or remote environments demonstrate statistically significant differences in their reported fulfillment of physiological, safety-security, belongingness, esteem, and self-actualization needs.

RESEARCH PROCEDURES AND METHODOLOGY

Research Design

This study employed a quantitative research design to determine whether the fulfillment of Abraham Maslow's five hierarchical needs differs among traditional, remote, and hybrid-setting employees within

the United States. Within this research, work setting served as the independent variable, while each of Maslow's five needs served as the dependent variables.

The research employed the use of Taormina and Gao's (2013) validated Five Need Satisfaction Measures, which individually measure physiological, safety-security, belongingness, esteem, and self-actualization needs. Supplemental demographic questions were included as well. The items of the Five Need Satisfaction Measures were conceptually grounded in Maslow's published literature and validated using confirmatory factor analysis and known-groups validity tests (Taormina & Gao, 2013). Scale reliabilities were examined using Cronbach's Alpha metric (Taormina & Gao, 2013). The Physiological Scale contains 15 items that measure the satisfaction of needs relating to sleep, food, water, air quality, sex, physical health, and temperature. The Safety-Security Scale contains 15 items that measure the satisfaction of needs relating to perceptions of safety, security, protection, a lack of immediate danger, financial well-being, and more. The Belongingness Scale contains 15 items that measure the satisfaction of needs relating to rapport, camaraderie, friendship, emotional support, togetherness, sympathy, affection, and love. The Esteem Scale contains 15 items that measure the satisfaction associated with both esteem from others and esteem from self. The Self-Actualization Scale contains 12 items and measures the extent to which self-actualization is achieved through various areas of personal fulfillment. Each of the Five Need Satisfaction Measures utilizes a five-point Likert scale, with higher mean scores for each individual need demonstrating stronger satisfaction and lower mean scores demonstrating less satisfaction (Taormina & Gao, 2013).

Data Collection

The target population of this study was full-time employees within the United States who work in traditional, hybrid, or remote work settings. This study defined full-time employment as working at least 30 service hours per week or 130 service hours per month (Internal Revenue Service, 2023). All study participants were required to be at least 18 years or older at the time of participation. As the scope of this research is limited to those employed full-time in the United States, it cannot be generalized to geographic populations outside of the United States.

The survey instrument containing demographic questions and the Five Need Satisfaction Measures was deployed using Amazon Mechanical Turk (MTurk) and QuestionPro. MTurk served as the participant recruitment tool and QuestionPro served as the survey deployment platform. The combined use of these internet-based services was selected to provide participant anonymity, and to recruit a geographically diverse sample that is reflective of the larger United States population. This study sought to achieve a medium effect size with a statistical power of 0.95 and an alpha value of 0.05 across three groups. To meet these criteria, a power analysis recommended a total sample size of 252, or 84 per group. Therefore, study recruitment continued until the appropriate number of usable responses was obtained. In total, 266 usable responses were gathered, with 90 responses belonging to the traditional work setting group, 89 to the remote work setting group, and 87 to the hybrid work setting group.

Data Analysis

Following the completion of data collection, data was organized, coded, and transferred to SPSS Statistics 29 software. First, the reliability of the Five Need Satisfaction Measures was assessed by examining Cronbach's Alpha values associated with each scale. Once the reliability of the scales was confirmed, the descriptive statistics and data distribution were examined. To assess data distribution, Shapiro-Wilk tests were performed. The data associated with each dependent variable were determined to be non-normal.

Consequently, one-way Kruskal-Wallis tests were employed for hypothesis testing. Five Kruskal-Wallis analyses were performed to determine whether traditional, remote, and hybrid employees demonstrate statistically significant differences in the fulfillment of Maslow's five needs. Mann-Whitney U tests were utilized for post-hoc pairwise comparisons. Lastly, a Bonferroni correction was applied to mitigate risks associated with an inflated Type I error rate.

RESULTS

Taormina and Gao's (2013) Five Need Satisfaction Measures originally demonstrated Cronbach's Alpha values of 0.81 for physiological needs, 0.87 for safety-security needs, 0.90 for belongingness needs, 0.91 for esteem needs, and 0.86 for self-actualization needs. In this study, physiological, safety-security, belongingness, esteem, and self-actualization needs demonstrated Cronbach's Alpha reliability scores of 0.91, 0.93, 0.93, 0.96, and 0.95, respectively. After confirming internal consistency among each scale within the present study, descriptive analyses and normality assessments were performed. Data dispersion was assessed among the response groupings (traditional, remote, hybrid) for each of the five dependent variables. Shapiro-Wilk tests indicated that the data associated with most groups were non-normal, with p-values falling below the 0.05 significance level. Table 1 provides the descriptive statistics associated with the data. Table 2 provides Shapiro Wilk test results.

TABLE 1
DESCRIPTIVE STATISTICS

Dependent Variable	Work Setting	*N*	Mean	Median	Mean Rank	IQR
Physiological Needs	Traditional	90	3.86	3.87	116.51	0.87
Physiological Needs	Remote	89	3.89	4.00	121.92	0.93
Physiological Needs	Hybrid	87	4.19	4.33	162.93	0.80
Physiological Needs	Total	266	3.98	4.00	N/A	0.86
Safety-Security Needs	Traditional	90	3.95	4.00	119.16	1.08
Safety-Security Needs	Remote	89	3.98	4.00	122.17	0.90
Safety-Security Needs	Hybrid	87	4.27	4.40	159.92	0.73
Safety-Security Needs	Total	266	4.06	4.07	N/A	1.0
Belongingness Needs	Traditional	90	3.90	3.93	117.47	0.83
Belongingness Needs	Remote	89	3.90	4.00	120.81	0.73
Belongingness Needs	Hybrid	87	4.27	4.40	163.06	0.73
Belongingness Needs	Total	266	4.02	4.07	N/A	0.86
Esteem Needs	Traditional	90	3.82	3.87	122.99	1.08
Esteem Needs	Remote	89	3.70	3.80	110.56	1.03
Esteem Needs	Hybrid	87	4.23	4.40	167.84	0.73
Esteem Needs	Total	266	3.91	4.0	N/A	1.08
Self-Actualization Needs	Traditional	90	3.72	3.83	128.78	1.17
Self-Actualization Needs	Remote	89	3.38	3.25	100.99	1.38
Self-Actualization Needs	Hybrid	87	4.18	4.42	171.63	0.83
Self-Actualization Needs	Total	266	3.76	3.92	N/A	1.33

TABLE 2
SHAPIRO-WILK TEST OF NORMALITY

Dependent Variable	Response Group	Statistic (*W*)	*df*	P-Value
Physiological Needs	Traditional	0.99	90	0.399
Physiological Needs	Remote	0.97	89	0.075
Physiological Needs	Hybrid	0.87	87	< 0.001
Safety-Security Needs	Traditional	0.96	90	0.013
Safety-Security Needs	Remote	0.97	89	0.025
Safety-Security Needs	Hybrid	0.86	87	< 0.001
Belongingness Needs	Traditional	0.95	90	0.001
Belongingness Needs	Remote	0.93	89	< 0.001
Belongingness Needs	Hybrid	0.95	87	0.001
Esteem Needs	Traditional	0.97	90	0.018
Esteem Needs	Remote	0.97	89	0.022
Esteem Needs	Hybrid	0.86	87	< 0.001
Self-Actualization Needs	Traditional	0.95	90	0.002
Self-Actualization Needs	Remote	0.98	89	0.096
Self-Actualization Needs	Hybrid	0.91	87	< 0.001

The Kruskal-Wallis test is the non-parametric equivalent to a one-way ANOVA test and does not require normally distributed data (Kruskal & Wallis, 1952). Within this study, five Kruskal-Wallis analyses were performed to determine if work setting impacts the fulfillment of employees' physiological, safety-security, belongingness, esteem, and self-actualization needs. The predetermined significance level for each analysis conducted was 0.05 ($\alpha = 0.05$).

For the Physiological Needs analysis, a Kruskal-Wallis test revealed a statistically significant difference between traditional, remote, and hybrid work setting groups, with a test statistic of $H(2) = 19.17$ and a p-value of less than 0.001. For the Safety-Security Needs analysis, a Kruskal-Wallis test revealed a statistically significant difference between traditional, remote, and hybrid work setting groups, with a test statistic of $H(2) = 15.34$ and a p-value of less than 0.001. For the Belongingness Needs analysis, a Kruskal-Wallis test revealed a statistically significant difference between traditional, remote, and hybrid work setting groups, with a test statistic of $H(2) = 19.21$ and a p-value of less than 0.001. For the Esteem Needs analysis, a Kruskal-Wallis test revealed a statistically significant difference between traditional, remote, and hybrid work setting groups, with a test statistic of $H(2) = 26.98$ and a p-value of less than 0.001. Lastly, for the Self-Actualization Needs analysis, a Kruskal-Wallis test revealed a statistically significant difference between traditional, remote, and hybrid work setting groups, with a test statistic of $H(2) = 37.65$ and a p-value of less than 0.001. As the p-values associated with each statistical test were less than the significance level of 0.05, all null hypotheses were rejected, and alternate hypotheses of differences among group medians were accepted. The findings of the employed Kruskal-Wallis analyses are summarized in Table 3.

TABLE 3
KRUSKAL-WALLIS ANALYSIS RESULTS

Dependent Variable	Statistic (*H*)	*df*	P-Value
Physiological Needs	19.17	2	< 0.001
Safety-Security Needs	15.34	2	< 0.001
Belongingness Needs	19.21	2	< 0.001
Esteem Needs	26.98	2	< 0.001
Self-Actualization Needs	37.65	2	< 0.001

Due to the significant findings of the Kruskal-Wallis analyses, post hoc pairwise comparisons were conducted using non-parametric Mann-Whitney U tests. For each dependent variable, Mann-Whitney U tests were conducted between the traditional and remote groups, the traditional and hybrid groups, and the remote and hybrid groups. As multiple pairwise comparison tests were conducted using the data associated with each dependent variable, the Bonferroni corrective method was applied to reduce the risk of inflated risk of Type I errors. An adjusted significance level of 0.017 ($\alpha = 0.017$) was considered as three post hoc tests were performed on each dependent variable dataset.

For the Physiological Needs variable, no statistically significant differences were observed between traditional (Mdn = 3.87) and remote (Mdn = 4.00) groups, $U = 3829.00$, $Z = -0.508$, p = 0.61. Statistically significant differences were observed between traditional (Mdn = 3.87) and hybrid (Mdn = 4.33) groups, $U = 2562.00$, $Z = -3.973$, p = < 0.001. Statistically significant differences were also observed between remote (Mdn = 4.00) and hybrid (Mdn = 4.33) groups, $U = 2664.00$, $Z = -3.575$, p = < 0.001.

For the Safety-Security Needs variable, no statistically significant differences were observed between traditional (Mdn = 4.00) and remote (Mdn = 4.00) groups, $U = 3851.00$, $Z = -0.445$, p = 0.66. Statistically significant differences were observed between traditional (Mdn = 4.00) and hybrid (Mdn = 4.40) groups, $U = 2778.50$, $Z = -3.338$, p = < 0.001. Statistically significant differences were also observed between remote (Mdn = 4.00) and hybrid (Mdn = 4.40) groups, $U = 2709.50$, $Z = -3.442$, p = < 0.001.

For the Belongingness Needs variable, no statistically significant differences were observed between traditional (Mdn = 3.93) and remote (Mdn = 4.00) groups, $U = 3861.00$, $Z = -0.416$, p = 0.68. Statistically significant differences were observed between traditional (Mdn = 3.93) and hybrid (Mdn = 4.40) groups, $U = 2616.50$, $Z = -3.814$, p = < 0.001. Statistically significant differences were also observed between remote (Mdn = 4.00) and hybrid (Mdn = 4.40) groups, $U = 2598.00$, $Z = -3.773$, p = < 0.001.

For the Esteem Needs variable, no statistically significant differences were observed between traditional (Mdn = 3.87) and remote (Mdn = 3.80) groups, $U = 3638.00$, $Z = -1.060$, p = 0.29. Statistically significant differences were observed between traditional (Mdn = 3.87) and hybrid (Mdn = 4.40) groups, $U = 2602.00$, $Z = -3.857$, p = < 0.001. Statistically significant differences were also observed between remote (Mdn = 3.80) and hybrid (Mdn = 4.40) groups, $U = 2197.00$, $Z = -4.963$, p = < 0.001.

For the Self-Actualization Needs variable, statistically significant differences were observed between traditional (Mdn = 3.83) and remote (Mdn = 3.25) groups, $U = 3050.00$, $Z = -2.757$, p = 0.006. Statistically significant differences were also observed between traditional (Mdn = 3.83) and hybrid (Mdn = 4.42) groups, $U = 2535.50$, $Z = -4.052$, p = < 0.001. Further, statistically significant differences were observed between remote (Mdn = 3.25) and hybrid (Mdn = 4.42) groups, U = 1933.50, $Z = -5.740$, p = < 0.001.

The effect size (r) for each Mann-Whitney U analysis was calculated using the following formula: ($r = Z / \sqrt{N}$). Given the interest in the magnitude of differences between groups, the effect sizes for the Mann-Whitney U tests are reported as absolute values without reference to direction. All findings associated with the Mann-Whitney U analyses are summarized in Table 4.

TABLE 4
MANN-WHITNEY U ANALYSIS RESULTS

Dependent Variable/ Groups	*N*	Statistic (*U*)	Statistic (*Z*)	P-Value	Effect Size (|*r*|)
Physiological Needs					
Traditional – Remote	179	3829.00	-0.508	0.611	0.04
Traditional – Hybrid	177	2562.00	-3.973	< 0.001	0.30
Remote – Hybrid	176	2664.50	-3.575	< 0.001	0.27
Safety-Security Needs					
Traditional – Remote	179	3851.00	-0.445	0.657	0.03
Traditional – Hybrid	177	2778.50	-3.338	< 0.001	0.25
Remote – Hybrid	176	2709.50	-3.442	< 0.001	0.26
Belongingness Needs					
Traditional – Remote	179	3861.00	-0.416	0.677	0.03
Traditional – Hybrid	177	2616.50	-3.814	< 0.001	0.29
Remote – Hybrid	176	2598.00	-3.773	< 0.001	0.28
Esteem Needs					
Traditional – Remote	179	3638.00	-1.060	0.289	0.08
Traditional – Hybrid	177	2602.00	-3.857	< 0.001	0.29
Remote – Hybrid	176	2197.00	-4.963	< 0.001	0.37
Self-Actualization Needs					
Traditional – Remote	179	3050.00	-2.757	0.006	0.21
Traditional – Hybrid	177	2535.50	-4.052	< 0.001	0.30
Remote – Hybrid	176	1933.50	-5.740	< 0.001	0.43

DISCUSSION

This study found that traditional, remote, and hybrid-setting employees demonstrate statistically significant differences in their fulfillment of Maslow's (1943) five humanistic needs. More specifically, this study determined that hybrid-setting employees display statistically higher levels of fulfillment with physiological needs, safety-security needs, belongingness needs, esteem needs, and self-actualization needs than when compared to both traditional and remote-setting employee groups. Interestingly, this study concluded that traditional and remote-setting employees do not demonstrate significant differences in their displayed levels of fulfillment of physiological, safety-security, belongingness, and esteem needs. However, traditional and remote-employee groups statistically differed in their fulfillment of self-actualization needs, indicating that self-actualization is more attainable within a traditional work environment.

The findings of this study have strong implications when considering the future topography of the workplace. The Great Resignation has evidenced employees' demands for improved work-life balance (Barrero et al., 2021; Fuller & Kerr, 2022; Gartner, 2022; Wigert & Agrawal, 2022). The resulting preference for the hybrid work environment fulfills the quest for heightened flexibility without sacrificing the benefits associated with in-person collaboration. Notably, the findings of this study suggest that the workplace dynamic experienced by hybrid employees influences the gamut of Maslow's extrinsic and intrinsic needs. The enhanced fulfillment of lower-order needs may be partially attributed to the advantages of enhanced work-life balance and reduced stress. Further, the higher-order needs of hybrid employees are likely supplemented through an integrated balance of personal and professional social interactions, relationships, recognition, validation, and a sense of accomplishment and purpose.

In contrast, traditional and remote-setting employees demonstrated parity in fulfilling Maslow's first four needs. This finding counters the assumption that the flexibility of remote work, alone, leads to

improved physiological and psychological well-being. It is important, however, to recognize the discernible difference found in the fulfillment of self-actualization between traditional and remote-setting employees. This finding reiterates the importance of enhanced social support and external validation in the pursuit of self-actualization.

In addition to recognizing the benefits of the hybrid work setting from the employee perspective, it is also paramount to discuss employer implications. Utilizing the hybrid work setting may now serve as an attribute in talent attraction, acquisition, and retention. Upper-tiered management is now presented with the unique opportunity of leveraging elements of organizational job design, such as work setting, as a means of employee attraction, workforce enhancement, and resulting competitive advantage. Further, employees who favor the hybrid model may be more inclined to remain with organizations that readily prioritize workplace flexibility. As such, organizations should now examine existing and future occupations to determine the positions that can be performed with reasonable flexibility from varying locations. Employers must also consider the investment associated with introducing virtual work, specifically those related to required technology and enhanced cybersecurity. These costs, however, may be offset by a reduction in the size of the physical footprint (Iqbal et al., 2021).

CONCLUSION

In the aftermath of the Covid-19 pandemic and the Great Resignation, workplace flexibility emerged as a crucial factor for employee recruitment and retention. Due to the growing focus on varying work setting models, this research quantitatively investigated the fulfillment of Maslow's humanistic needs among United States employees working in traditional, remote, and hybrid-settings. The research determined that employees working within the hybrid-setting demonstrate statistically higher levels of fulfillment across the five hierarchical needs. These findings assert the ability of work setting to influence employees' humanistic needs, spanning from physiological to self-actualization. Considering the results of this study and coupled with documented employee demand for work-life balance, employers must evaluate job roles for hybrid model adaptability. Future research should focus on the benefits of the hybrid work setting related to the organization and employee. Further, research should examine key performance indicators against various work setting environments, including traditional, remote, and hybrid.

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