OVERWORKED AND UNAWARE:
Investigation of Phenomena Surrounding an Overworked Lifestyle

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Abstract

Overproductivity is an epidemic among Americans. Today, our lives are faster, busier, and more stressful than ever before. Previous researchers have found links between three phenomena (addictive social media usage (SMA), toxic productivity within a workplace (TP), and Imposter Syndrome (IS)) and perceived work overload (PWO), a predictor of an unbalanced work-rest relationship. This finding from pre-existing research sparked the goal of this research study: to find the “perfect storm” that connects each of the three aforementioned phenomena to both each other and PWO among respondents within the greater Chicagoland area.

To assess the prevalence of each phenomena within 51 respondents of a cross-sectional survey, four Likert scales were used to determine the factors that influence each respondent, with the purpose of finding a variety of contributors to PWO. Both categorical and quantitative analyses were conducted on the responses. It was concluded that SMA has little to no effect on PWO within respondents, while a combination of both moderate TP and moderately high IS was the most prevalent indicator of high PWO. Additionally, only five of the fifteen tested factors were significantly influential in relation to PWO. These findings will allow for future research to further investigate the extent to which these factors influence PWO, and how we can combat PWO.

Introduction

Today, Americans are working more, sleeping less, and feeling less happy than previous generations. We are expected to perform at higher levels, perhaps attributable to technological advancements, which leads to greater stress and burnout. The negative effects of an overcommitted lifestyle include sleep deprivation, unhealthy eating habits, excess weight, and feelings of depression and anxiety. Figure 1 shows that as adults work more hours, they sleep more than an hour less each night.

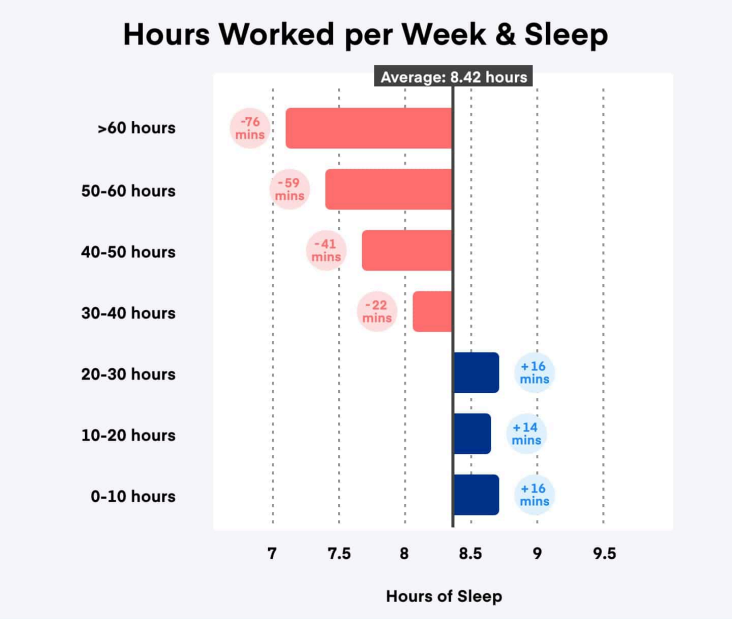


Figure 1. Hours Worked per Week & Sleep (Guterman, 2020)

In the American workplace, constant productivity is expected among employees and exhausting hours are praised, even while workers are overwhelmed and anxious. “Imposter Syndrome” (IS), another tendency found among American employees, is characterized by the belief that one’s success is due to chance, or the fear that the employee has peaked and will be unable to live up to expectations set by society or the employer.

Figure 2. Yerkes-Dodson Stress Curve (Gino, 2016)

Figure 2 shows that as employees become more stressed, their work ability reduces and a variety of adverse effects follow. For this study, we will be focusing on individuals that fall under the “Sick” and “Disease” categories; the effects of which are exhaustion, burnout, and poor mental health.

The three aforementioned elements all contribute to feelings of an unbalanced work-rest relationship. Results from this questionnaire will help find the correlation between SMA, TP, IS, and an overworked schedule...all phenomena that affects the average American. The information obtained from this study may help each respondent and reader understand the relationship between their workplace and their own mind, and potentially make adjustments to their daily life accordingly.

Literature Review

Perceived work overload (PWO)

Published in December 2020, three Swedish researchers conducted a longitudinal study that aimed to investigate what combination of factors predicted reduced work ability. A questionnaire utilizing the Work Imbalance Scale (WIS) was sent to all employees in the public working sector in Sweden to investigate what affect PWO, overcommitment, balance in everyday life, individual factors and self-rated health in combination have on work ability. The conclusion drawn was that an imbalance in everyday life and overcommitment was the main predictor of reduced work performance in women, while low education levels predicted reduced work ability for men. However, the addition of poorly self-rated health generated the strongest predictor of work ability for both genders (Håkansson et al., 2020).

A similar study published in the *International Journal of Workplace Health Management* in May 2021 aimed to find the differences in overall well-being and health among four different subcategories of heavy work investment. These researchers randomly selected 510 respondents to be included in the internet survey, and then identified the workers with heavy work investment (long hours and high effort in the workplace). Each participant was categorized into one of four different groups, and were then questioned on their overall well-being and health.[1] The researchers determined the work-devoted and needy subcategories were the most distinct. Work-devoted respondents were associated with better current health conditions and higher overall happiness, while those who were classified as needy had the worst outcomes, including higher levels of stress and daily bodily pains (Raphael Snir, Itzhak Harpaz, 2021). From these two studies, we learn the impact that an overcommitted lifestyle can have on an individual, as well as classify some factors that contribute to this feeling of being overworked.

Thus, the idea of PWO was introduced. In the context of this study, PWO refers to “feelings of an unbalanced work-rest relationship.” There are a variety of effects that are associated with PWO, including burnout, stressful thoughts of work during personal time, feelings of little reward with high expectations, and sleep deprivation. A constant push for productivity is not the sole factor that contributes to an overworked life; three phenomena were continually attributed to overproductivity: TP, SMA, and IS.

Meta-analysis 1: Toxic productivity (TP)

The first of the three identified phenomena was TP, which occurs when a workplace puts profit over people and excessively promotes competition. A study in the *International Journal of Stress Management* tells us that workaholics, or individuals that log higher than average hours at a job, can be identified both by their

[1] The researchers used an elimination mode to classify the respondents identified as heavy work investors into four main subcategories. Those with high financial needs were classified as needy. From those that remained, those who reported high organizational demands were identified as organization-directed. Those that remained were split into two final groups: workaholics (high drive to work) and work-devoted (high passion for work).

environment and personal characteristics, including: ambition, motivation, perfectionism, conscientiousness, and self-efficacy. In a survey of 333 Dutch employees, moderated regression analysis concluded that there is a significant increase in workaholism when employees were characterized as conscientious and self-sufficient, but only when these individuals are within an overworked climate (Mazzetti, 2016). While personal characteristics may predispose individuals to an overcommitted lifestyle, these characteristics are cultivated only within a toxic workplace. This idea is supported in “Conspicuous Consumption of Time: When Busyness and Lack of Leisure Time Become a Status Symbol,” a *JCR* study that argued that a busy and overworked lifestyle has become a status symbol. The researchers found positive associations between busyness at work and the belief that this quality is in-demand yet scarce. It was also claimed that TP can be found to some extent in many work environments today, and explains how an over productive workplace leads to unhappy workers with unbalanced work-rest relationships (Bellezza, 2016).

Meta-analysis 2: Addictive social media usage (SMA)

While TP does play a significant role in an overcommitted lifestyle, there is significant evidence of social media also contributing to this phenomenon. SMA, within the scope of this study, means “prolonged dependence on social media platforms resulting in significant impairment of daily activities” (Bányai et. al., 2017). The significance of SMA was studied and classified using the Bergen Social Media Addiction Scale (BSMAS), which categorized each respondent of a study into different groups of addictive-social-media-severity. It was found that 4.5% of the adolescents surveyed belonged to the at-risk group, and reported low self-esteem, high level of depression symptoms, and elevated social media use (Bányai et. al., 2017). This survey not only validates the BSMAS, but also shows the severity of this issue. This scale was used along-side the Narcissistic Personality Inventory-16 and the Rosenberg Self-Esteem Scale to determine that factors such as low self-esteem and lower income are associated with higher BSMAS scores. The findings supported the notion of SMA reflecting “a need to feed the ego and an attempt to inhibit a negative self-evaluation (i.e., self-esteem)” (Andreassen et. al., 2016). The severity of SMA is clear - not only does it have negative impacts on mental health, but it also contributes to an overcommitted lifestyle and its associated negative impacts.

Meta-analysis 3: Imposter Syndrome (IS)

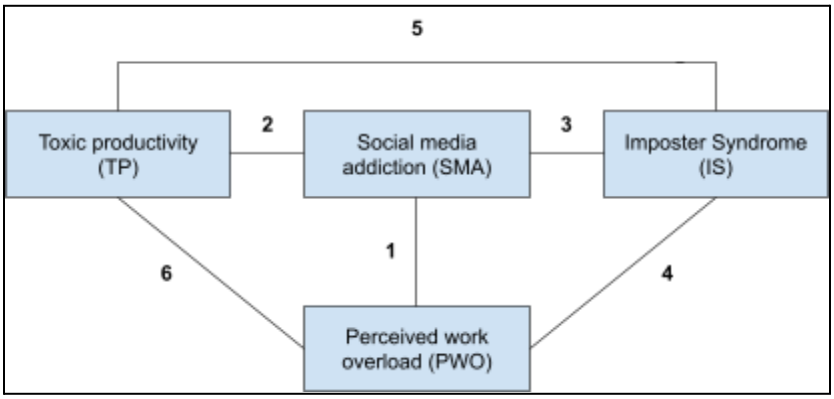
IS is characterized by the view that achievements are due to chance events instead of one’s capabilities. There is often fear of being “outed” as a “fraud” or being incapable of the expected level of achievement. The idea of IS came from a small correlational study published in the *Journal of Personality Assessment*. Using the Perceived Fraudulence Scale, validated by a psychologist at the School of Psychology in Australia, among a variety of other IS scales (Clance Impostor Phenomenon Scale, Harvey Impostor Scale, Leary Impostor Scale) (Mak et. al., 2019), three researchers examined perceived fraudulence and its associated personality traits in young adults. Correlational patterns and regression analyses supported the

investigators' belief that perceived fraudulence is caused by a combination of self-criticism and social pressures (Kolligian, 2010). These conclusions were supported by further investigations, and identified other factors as contributors, such as low self-esteem (Cokley, 2018) and perfectionist tendencies. IS was also identified as a mediator between perfectionism and anxiety/depression (Wang et. al., 2018).

Connections

Three unexpected elements were attributed to creating and exemplifying these feelings of unbalance: SMA, TP, and IS. While each of these have been explored separately, there has been little research as to how these factors work together to create the "perfect storm" for an unbalanced work-rest relationship. Figure 3 shows how each number connecting two of the phenomena corresponds with one of the studies described below.

Figure 3. Connections between phenomena.



1 (SMA, PWO): The Impact of Social Media Use on Job Burnout: The Role of Social Comparison. (Han et. al., 2020).[2]

2 (SMA, TP): A general discussion of displays of wealth in the form of social media was published in the *Journal of Consumer Research*. These researchers claimed social media's status update allows one to demonstrate their busy schedule towards a large number, called "humblebragging". Essentially, it gives the impression that the busier one is, the higher their status. Social media has led to a surge in displays of productivity to show one's status (Bellezza et. al., 2016).

3 (SMA, IS): Bethany Myers of the School of Communication and the Arts identified the link between IS and social media usage, claiming that social media offers a "communication channel filled with edited-to-perfection content,". This is detrimental to those who feel incapable of succeeding and believe everyone is achieving but them. Myers conducted 15 in-depth interviews with individuals self-diagnosed with IS and active on social media. The participants explained feelings of disappointment and incompetence in themselves when seeing the perfected accomplishments of others (Myers, 2021).

[2] A 530-person sample of a working population took an online survey that aimed to examine the association between social media use and job burnout. It was determined through regression analysis and hypothesis testing that there is a significant positive correlation between social media use and job burnout ($r = 0.487$); meaning, as social media use increases, so does the probability of job burnout.

4 (IS, PWO): Imposter Syndrome Among First- and Continuing-Generation College Students. (Holden et. al., 2021).[3]

5 (IS, TP): The correlation between toxic workplaces and IS was discussed. Toxic workplaces are characterized as environments that diminish the importance of their people and promote excessive competition between employees. A focus on profit, process and minimizing resources is encouraged, to a fault. By giving the false impression to workers that peers are producing at higher rates creates feelings of incompetence (Daley, 2018).

6 (TP, PWO): An Empirical Study Analyzing Job Productivity in Toxic Workplace Environments. (Anjum et. al., 2018).[4]

Gap in Research

All four elements are connected to each other in one way or another, and many credible studies have found the correlation between each such phenomenon. However, there has not been a study that found the relationship between all four, and how each relates to the other. Therefore, this study is being conducted to determine the correlation between each of the three phenomena (SMA, TP, and IS) and how each contributes to feelings of an unbalanced work-rest relationship.

Methods

Purpose

The purpose of this cross-sectional survey was to pinpoint and identify the phenomena that leads to an unbalanced work-rest relationship in adult US workers in the greater Chicagoland area. The use of such a survey was due to time and logistical constraints, such as current COVID-19 restrictions that limit in-person contact. An entirely virtual survey was used to allow for a wide range of respondents. The cross-sectional nature of the questionnaire allowed for the researcher to test for a variety of factors that lead to an overcommitted lifestyle. Because of this, a wider range of conclusions were drawn, and more insight was gleaned through this specific methodology than another form of research would have provided.

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[3] This study explored the relationship between Imposter Syndrome and stress that comes with an overworked schedule, especially among first-generation college students. 388 college students, including 184 (47.4%) first-generation students were surveyed; results indicated that levels of Imposter Syndrome and stress were significantly correlated, with the two being more strongly associated with first-generation students in comparison to continuing-generation students (who traditionally found less societal and familial pressure to succeed in school).

[4] An empirical study aimed to determine the effects that a toxic workplace environment can have on the job performance of an employee. Three hundred randomly-distributed questionnaires were distributed among the staff of seven private universities in Pakistan. Hayes mediation approach and the Confirmatory Factor Analysis were used to confirm the validity of the results, which showed that job burnout was found to be a statistically significant mediator between a toxic workplace environment and job productivity.

Distribution

Distribution of this cross-sectional survey aimed at reaching a diverse group of respondents. Due to time and money constraints of being a high-school student, the researcher was unable to conduct a stratified random sample, and instead had to rely upon prior relationships the researcher had. A description of the survey and its link were sent to 44 family members (over 18, within the greater Chicagoland area) and 78 members of the researcher's church, the Church of Jesus Christ of Latter-day Saints. Although each respondent had a personal connection to the researcher, many types of careers were represented. Social media platforms, including the researcher's Instagram and Snapchat story, and a Reddit page (specifically created for researchers to post their surveys) titled "[Academic] Phenomena Surrounding an Unbalanced Work Life (Chicagoland area, 18+)" were utilized to distribute the survey's link. Finally, a link, along with a short description of the purpose of the survey, was sent to 98 local small business owners around Elgin, Illinois. All of these distribution methods were utilized to gain responses from workers from as many different types of jobs as possible, so as to preserve the cross-sectional nature of the study.

Figure 4. Sample survey questions for each scale.

Sample Questions:

(Section 2) Heavy Work Investment Scale:
1. I feel my workload is higher than the ideal workload for my position.
2. My workload is higher than that of colleagues of the same organizational status.

(Section 4) Bergen Social Media Addiction Scale:
1. I feel an urge to use social media more and more.
2. I become restless or troubled if I am prohibited from using social media.

(Section 5) Toxic Productivity Scale:
1. I feel that competition between employees is excessively promoted within my working environment.
2. I feel that my performance is valued more than my feelings by my coworkers and employers.

(Section 6) Clance Imposter Syndrome Scale:
1. When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.
2. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error or form of luck.
3. I avoid evaluations if possible and have feelings of dread when others evaluate me.

Measures

The survey was divided into seven sections: (1) demographics, (2) PWO Test, (3) general social media usage, (4) BSMAS, (5) toxic productivity (TP) scale, (6) Perceived Fraudulence Test (PFS), and (7) final thoughts.

The demographic section asked for the age range, gender, type of pay (hourly/salary), hours of PAID work (on-the-clock, overtime), hours of UNPAID work, hours of sleep, and two free-response questions asking if one's workload has an impact on their (1) sleep schedule, and (2) personal time. The hours of paid work compared to the hours of unpaid work was key to this section. An entry-level worker that works <20 hours a week would have a vastly different experience of PWO than a salaried manager working 60+ hours a week without overtime pay. As outlined in the Implied Consent Form, which included the risks and time frame for the survey, a respondent could decline any question, and could terminate involvement at any time.

Next, participants engaged in a modified version of the Heavy Work Investment (HWI) test (similar to the PWO scale), which is a scale that determines one's level of work investment and feelings of burnout by

asking five questions (Snir, et. al., 2021). This test presents respondents with one fill-in-the-blank question ("My workload is…" followed by five choices: very low, fairly low, normal, fairly high, very high) and four statements, with five possibilities (based on the Likert Scale): strongly disagree, disagree, no view, agree, strongly agree. Each of the four statements had a negative view on the status and workload of one's position. This test was utilized in a study published by the *International Journal of Workplace Health Management*, which confirmed the validity of this scale (Snir, et. al., 2021).

The third section of this survey included more general information, with a specific focus on social media usage. Six questions were asked about the forms of social media respondents used, as well as what type of accounts they followed (i.e. friends, family, colleagues, celebrities, inspirational accounts), and hours spent daily on social media, specifically at work. It ended with two free-response questions asking how social media impacts one's day-to-day life, and for their general emotional response to social media in comparison to their feelings before usage. All questions utilized neutral language to avoid bias in the questioning. All free-response questions were pre-tested with selected individuals to adjust the wording and tone. This section was primarily used to look for any recurring patterns or themes within responses.

The fourth portion utilizes the BSMAS, a scale introduced in a large-scale, nationally-representative study involving the problematic usage of social media by teenagers (Bányai, et. al., 2017), to look for SMA. The validity of this scale was later supported in a national survey testing its effectiveness (Andreassen, 2017). A modified version of this scale was used in this questionnaire by presenting five statements, with five positions indicating the level of connectedness to the statement: not true at all, rarely, sometimes, often, and very true. Each position was assigned a certain amount of points (one for 'not true at all', two for 'rarely', and so on). The statements provided indicate social media addiction.

The fifth section does not follow a predetermined scale, as the others do. Instead, questions were based on the feelings and indications of a toxic workplace environment within the previously mentioned study, "An Empirical Study Analyzing Job Productivity in Toxic Workplace Environments". A toxic workplace is identified as an environment that excessively promotes competition within employees, values performance over the well-being of their workers, and creates an atmosphere that makes taking a break feel not allowed (Anjum, et. al., 2018). Five statements were presented in this section, with five indications of relatability: not true at all, rarely, sometimes, often, and very true, with each position being assigned a certain amount of points (one for 'not true at all', two for 'rarely', and so on). The statements provided indicate characteristics of a toxic workplace environment. The questions created looked for identifiers of a toxic productive working place, and are demonstrated in Figure 4 above.

The sixth section utilized the Clance Imposter Phenomenon Scale (CIPS), a scale that was developed to help individuals determine to what extent, if any, they had Imposter Phenomenon (IP). This scale was introduced to examine perceived fraudulence, its measurement, and the associated personality traits in young adults (Kolligian, Sternberg, 2010). The validity of this scale was later supported in a systematic review testing

its effectiveness (Mak, Kleitman, Abbott, 2019). 12 statements looked for feelings of inadequacy and low self-esteem, and each statement was followed by five indications: not true at all, rarely, sometimes, often, very true, each position being assigned a certain amount of points (one for 'not true at all', two for 'rarely', and so on).

The final section had two optional questions. The first asked for the respondent's primary career field (Agriculture, Food, & Natural Resources, Business, Management, & Administration, Communications & Information Systems, Engineering, Manufacturing, & Technology, Health Science Technology, Human Services), contributing to the cross-sectional nature of this survey, and aimed to find a correlation between the career field and an overcommitted lifestyle. The last question asked for any final thoughts.

Results

Two methods were used to analyze the results: quantitative analysis through Least Squares Regression lines and slopes and categorical analysis through Chi-Square (see Appendix E).[5]

'Demographics'

From the greater Chicagoland area, 51 individuals completed the survey over a two-week period. The age of respondents ranged from 18 to 70+, with the majority of respondents falling between 30 and 50. 30 of the 51 respondents were female (58%), 20 male (39%), and 1 unknown. Most individuals were paid hourly (52%), followed by salaried employees (34%), and those paid on commission (12%). 21 of our respondents do not work a full 40-hour work week; 18 respondents did not work any unpaid hours, while 14 respondents worked over 10 unpaid hours a week. 62% reported sleeping 6-7 hours, and over half explained that their workload affected their sleep schedule and personal time. One respondent eloquently explained that "it is difficult to 'turn off' the working mind, and takes time to settle into true rest. Personal time is often interrupted with small work tasks that make it difficult to settle."

'Work Load'

Each of the five positions was assigned a certain number of points. A selection of the view "strongly disagree " gave the respondent one point, with a selection of "disagree" being associated with two points, and so on.[6]

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[5] *Note*. The categorical analysis of results was moved to Appendix F. To preserve word count, the scales used and the number of respondents falling into each category were moved to the footnotes.

[6] A resulting score of 5 to 14 points resulted in the categorization of "normal workload" (22 respondents), with a score of 15 to 30 resulting in the categorization of "high workload" (29 respondents); 51% reported an "above average" workload.

'General Social Media Use'

This section focused on general usage of social media. Instagram was the most popular platform, followed by Snapchat and Facebook. 32 respondents use social media for less than 1 hour a day, and only 7 use social media at work. Very few responses indicated a positive change in feelings after using social media, compared to before.

'Social Media Usage'

Using the HWI scale, each of the five positions to each question was assigned a certain number of points. A selection of the view "strongly disagree" gave the respondent one point, with a selection of "disagree" being associated with two points, and so on.[7]

'Workplace Environment'

The TP scale scoring is identical to the BSMAS scoring.[8]

'Mental Influence'

The Clance IS scale scoring is nearly identical to the previous two scoring methods, with a slight modification as 12 questions were used, as opposed to five.[9]

'Final Thoughts'

The majority of respondents identified their primary career field as Business, followed closely by Human Services and Technology. Within the final thoughts free-response question, the majority of respondents indicated that their workload differs depending on their work schedule.

Quantitative Analysis

The data was initially analyzed quantitatively. Each of the four factors were plotted on a graph (response variable: PWO, explanatory variable: SMA, TP, IS) with their specific quantities, as opposed to their categorization. The three plots are shown below (Figure 5).

(a) PWO v SMA: y (PWO score) = 0.264x (SMA score) + 12.4, r = 0.332, r^2 = 0.11
(b) PWO v TP: y (PWO score) = 0.31x (TP score) + 10.9, r = 0.412, r^2 = 0.17
(c) PWO v IS: y (PWO score) = 0.0486x (IS score) + 13.4, r = 0.158, r^2 = 0.025

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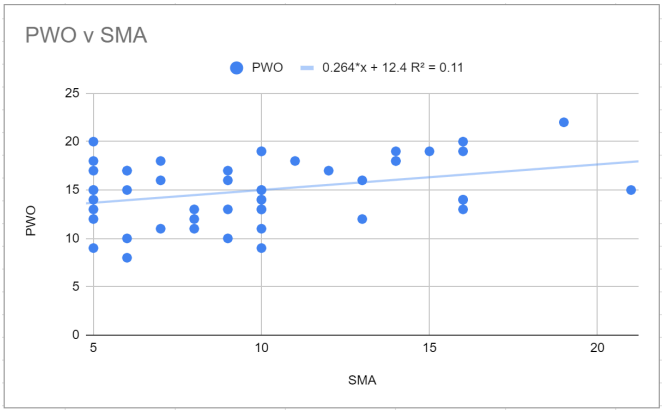
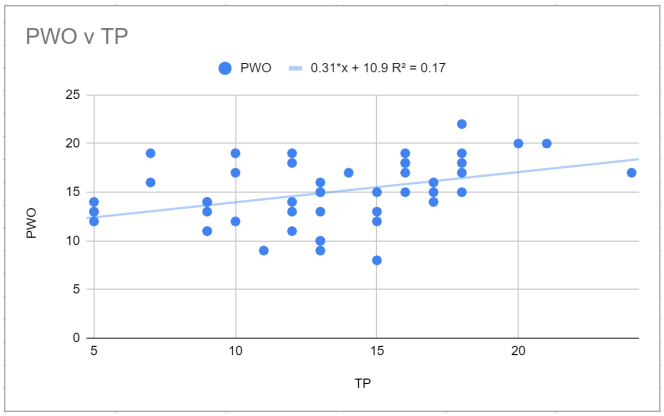
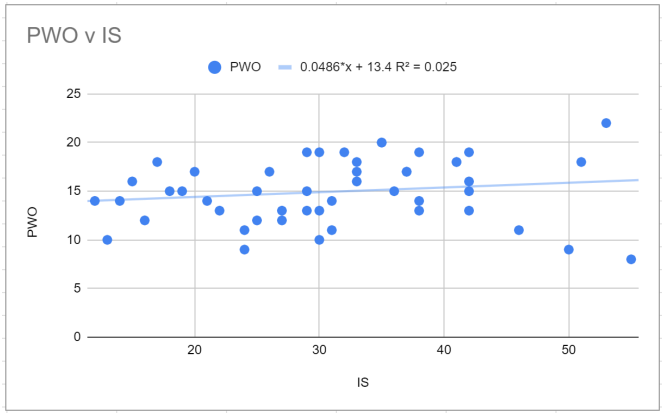
[7] A resulting score of 5 to 11 points resulted in the categorization of "minimal SMA (social media addiction)" (35 respondents), 12 to 18 indicating "moderate SMA" (14 respondents), and 19 to 25 "high SMA" (2 respondents).
[8] A resulting score of 5 to 11 points resulted in the categorization of "minimal TP (toxic productivity)" (16 respondents), 12 to 18 indicating "moderate TP" (34 respondents), and 19 to 25 "high TP" (3 respondents).
[9] After adding together the numbers of the responses to each statement, the total score will categorize each respondent as follows: total score of 12 to 23 indicating few Impostor characteristics (13 respondents); a score between 24 and 36 shows moderate Imposter experiences (22 respondents); and a score of 37 to 48 means the respondent often has intense Imposter Syndrome experiences (16 respondents).

Figure 5. Least Squares Regression Lines (LSRL) for each factor.







As shown in the least squares regression graphs, TP accounts for the greatest variation between the different PWO levels (r^2 = 0.17), followed by SMA (r^2 = 0.11) and IS (r^2 = 0.025) alone. To support these conclusions, the LSRL slope intervals for each of the four factors combined with each other were calculated. The results are shown below in Figure 6. An interval in which 0 (meaning no correlation between the two factors) is not a potential value means that we can assume there is a dependent relationship between the two factors, and they are not independent of each other.

Categorical Analysis

The data was then analyzed categorically. Since each respondent was placed into four different categories (one category had two potential groups, three categories had three potential groups), there were 54 total potential combinations. Only 19 of the 54 combinations were actually found within the sample results. Of those 19 combinations, only 7 occurred at a frequency greater than 5%. These 7 combinations, along with their frequencies, are shown in Figure 7 below. The most frequently occurring combination was: moderate IS + low SMA + moderate TP + high PWO, which occurred at a proportion of 0.137. Further categorical analysis of results was moved to Appendix F in the interest of word count.

Least Squares Regression Line slope intervals:
PWO + SMA: (-0.4558, 1.4815)
PWO + TP: (0.06909, 0.76504)
PWO + IS: (0.19184, 0.90185)
SMA + PWO: (-0.0408, 0.13275)
SMA + TP: (0.05709, 0.25767)
SMA + IS: (0.06585, 0.27636)
TP + PWO: (0.04373, 0.48416)
TP+ SMA: (0.40319, 1.8199)
TP + IS: (-0.167, 0.4474)
IS + PWO: (0.10884, 0.51164)
IS + SMA: (0.41691, 1.7498)
IS + TP: (-0.1497, 0.40107)

Figure 6. Least Squares Regression Line (LSRL) slope intervals for each factor.

Other Factors

Not only were these four factors accounted for within the survey, but a variety of other factors were questioned as well. A chi-square test of independence was performed to examine the relation between average hours of sleep and perceived workload. The relation between these variables was significant, X^2 (1, N = 50) = 11.6918, p = 0.0029. Those who sleep less than 5 hours a night are far more likely to have high PWO, while

those sleeping over 8 hours a night are far more likely to have low PWO. It can be safely concluded that gender, age range, and daily hours of social media had little to no effect on perceived workload, as the proportions for each range/category were near 50% (+/- 5%) throughout. Those within the 'Human Services' and 'Agriculture, Food, & Natural Resources' sectors as their main career field had a significantly higher proportion of individuals with high PWO (0.75 each).

H PWO; M IS; L SMA; M TP: 7
H PWO; H IS; M SMA; M TP: 5
H PWO; L IS; L SMA; M TP: 4
L PWO; L IS; L SMA; L TP: 4
L PWO; M IS; L SMA; L TP: 4
L PWO; M IS; L SMA; M TP: 4
L PWO; H IS; L SMA; M TP: 3

Figure 7. 7/54 possible combinations occurring at a frequency of >5% (showing counts).

Surprisingly, a chi-square test of independence showed that there was no significant association between PWO and hours of paid work, $X^2 (1, N = 48) = 4.64$, $p = 0.1998 > 0.05$, or the type of payment (salary, commission, hourly) ($X^2 (1, N = 39) = 3.26$, $p = 0.196 > 0.05$). However, there is a significant relationship between PWO and hours of non-paid work. Those who work over 5 hours of non-paid work are significantly more likely to experience high PWO compared to those that work less ($X^2 (1, N = 48) = 8.4$, $p = 0.015 < 0.05$).

Conclusion

Prior to the consolidation of data, various studies were analyzed and a gap in research was established. The four primary factors (PWO, SMA, TWE, and IP) were found to be interconnected, and various credible studies have found correlations between each such phenomenon. However, there has been no study that found the relationship between how all four relate to each other. The purpose of this study was to find this "perfect storm" and come to a decisive conclusion on the factors that are most likely to lead to a PWO for respondents in the greater Chicagoland area.

Conclusion 1: SMA has little to no effect on PWO.

Figure 6 shows that four of the 12 intervals include 0 within their LSRL slope intervals. The relationship between PWO and SMA shows that the slope interval includes 0 as a possible value, which would indicate that there is not a dependency of one factor on the other. We can conclude at a 95% confidence level that PWO and SMA are independent of each other within the survey respondents. A Chi-Square analysis test, as well as an analysis of the four-way frequency tables (found in Appendix F) supports this conclusion. Among survey respondents, we found that SMA tendencies have little to no effect on PWO. However, further research on both extreme ends (little to no SMA, intense SMA) is necessary to come to a definitive conclusion.

Conclusion 2: Moderate TP levels and moderate to high IS, in conversation with each other, are a more accurate predictor of high PWO.

Any level of SMA influenced PWO to the same extent. However, TP and IS have different effects when taken into account together. Alone, only TP has a significant impact on PWO, but together, the two are a more accurate prediction of PWO levels. When TP and IS are both considered “moderate,” PWO is more likely to be considered ‘high’ than ‘low’ than with any other TP + IS combination (X^2 (1, N = 51) = 9.213, p = 0.0026 < 0.05). While past research has shown both the dependency within the relationship of TP and PWO, as well as IS and PWO, no research has found the dependency between TP + IS and PWO. We now have a general answer to this inquiry. When both phenomena are experienced to a moderately high extent, we can predict a higher than average PWO. This information will be useful in helping readers recognize and understand these phenomena in their own life and may encourage them to (a) seek a new work environment or change their workplace surroundings, or (b) seek professional advice if IS becomes overwhelming.

Conclusion 3: The statistically significant factors that have been found to predict perceived workload levels are as follows: TP, IS, average hours of sleep, career field, and hours of unpaid work.

Of the 15 factors examined, only five factors have been found to statistically significantly influence PWO: moderate TP, moderate IS, less than five hours of sleep a night, employment within the Human Services/Agriculture, Food, & Natural Resources field, and completes over five hours of non-paid work a week. No past studies have examined the amount of factors, nor the extent to which they were examined, as the multitude of factors studied within this cross-sectional study.

Implications of Research

Our three conclusions allow us to gain insight on the factors impacting workload. The information gleaned from this study will be able to add to the discussion surrounding workplace burnout and an unbalanced work-rest relationship, especially among adults within the greater Chicagoland area. No study has examined these specific factors in conversation with each other, and this research will hopefully break ground for future endeavors. This research will allow readers to look for warning signs of burnout and PWO within their own lives. Each individual has a unique experience and a variety of factors that lead to work overload…far too many to examine in one small study. While only a handful of factors that contribute to PWO were accounted for in this study, and acknowledging that each experience is personal, the results contained within will hopefully allow one to recognize the warning signs of PWO.

Limitations

The sample data does not provide a definitive answer to our initial question, what is the “ideal combination” of these three factors that will most likely lead to a high PWO? This was a simple cross-sectional survey; therefore, we cannot conclude a cause-and-effect relationship. Furthermore, because an SRS (simple random sample) was not used, we can only extend our conclusions, that there is a dependency between our factors and PWO, to the survey respondents. The researcher initially intended on including a few in-depth

interviews with respondents to glean further information; however, the researcher decided to eliminate this portion of the methodology due to time constraints.

Areas for Future Research

Future research is required to extend the conclusions made within. More information on SMA is needed to come to more conclusive results. Future studies could include a longer time frame and different methods of gathering data and respondents. A sample size of 200 (four times the size of the current study, will cut the margin of error in half) will make more generalized and decisive conclusions. Other factors could be explored in more depth, using a smaller survey to target one or two factors, instead of 15. Various other methods could be utilized to achieve more accurate results.

Conclusive Statement

For now, the conclusions drawn from this study will hopefully jumpstart new research on this pressing issue. An overcommitted and unbalanced life can result in sleep deprivation, slowed thinking, burnout, unhealthy relationships, poor eating habits, and low self-esteem, among many others. Americans now work 150 more hours per year than they did 40 years ago. Results from this questionnaire can lead to future research that will help put an end to PWO, and maybe, just maybe, we will finally be able to rest.

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Appendices

Appendix A: 'Phenomena Surrounding an Unbalanced Work Life' Implied Consent Form (Section 1) and cross-sectional survey questions

(Section 1 of 9) Implied Consent Form

PRINCIPAL INVESTIGATOR
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PURPOSE OF STUDY
You are being asked to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information.
The purpose of this study is to pinpoint and identify the phenomena that may lead to an unbalanced work-rest relationship in adult US workers in the greater Chicagoland area.

STUDY PROCEDURES
The duration of this questionnaire will last about 10 minutes. There are about 40 multiple-choice questions, and 2 optional short-answer questions. Your responses will be analyzed and utilized in a research paper for an AP Research class at St. Charles North in St. Charles, Illinois.

RISKS
You may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

BENEFITS
Results from this questionnaire will help find the correlation between addictive social media usage, toxic productivity, Imposter Syndrome, and an overworked schedule...all phenomena that affects the average American on a daily basis. There will be no direct benefit to you for your participation in this study. However, we hope that the information obtained from this study may help you understand the intricacies of your relationship with your workplace and your own mind.

CONFIDENTIALITY

Your responses to this survey will remain anonymous. Please do not write any identifying information on your survey. Participant data will be kept confidential except in cases where the researcher is legally obligated to report specific incidents. These incidents include, but may not be limited to, incidents of abuse and suicide risk.

CONTACT INFORMATION

If you have questions at any time about this study, or you experience adverse effects as the result of participating in this study, you may contact the researcher or advisor whose contact information is provided above. If you have questions regarding your rights as a research participant, or if problems arise, please discuss any issues with the Primary Investigator.

VOLUNTARY PARTICIPATION

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to provide your virtual signature on a consent form below. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship you have, if any, with the researcher. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.
I have read and I understand the provided information and have had the opportunity to contact the primary researcher and ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study. By typing "I agree" in the space below, I indicate that I give the primary researcher full permission to use my responses in her research paper.

(Section 2 of 9) General Information

Please answer these questions to the best of your knowledge and as honestly as possible. Don't think too much on one question, as the most accurate responses are the ones that come quickly.

1. Age
    - 18-29
    - 30-39
    - 40-49
    - 50-59
    - 60-69
    - 70+
2. Gender
    - Male
    - Female

Prefer not to say

Other…

3. How did you hear about this survey?

Social media

Reddit

Word of mouth

Shared by a friend or family member

Shared by workplace / employer

Polling sites

Other…

4. Do you have an hourly or a salaried job?

Hourly

Salary

Commission

Other…

5. How many hours do you typically spend working on the clock or overtime a week (PAID hours of work)?

Less than 20

21-30

31-40

41-45

46-50

51-55

56-60

61+

6. How many hours do you typically spend working OFF the clock a week (UNPAID hours of work)?

None

1-5

6-10

11-15

16-20

21+

7. How many hours do you sleep each night?

Less than 3

3-5

6-7

8-9

More than 9

8. Do you feel that your workload has an impact on your sleep schedule (Y/N)? If yes, explain.
9. Do you feel that your workload has an impact on your personal time (Y/N)? If yes, explain.

(Section 3 of 9) Workload

Indicate how applicable the following statements are to your workload. Please answer these questions to the best of your knowledge and as honestly as possible. Don't think too much on one question, as the most accurate responses are the ones that come quickly.

1. My workload is:

Very low

Fairly low

Normal

Fairly high

Very high

2. I feel my workload is higher than the ideal workload for my position.

Strongly Disagree

Disagree

No View

Agree

Strongly Agree

3. My pay is inadequate for my status and workload.

Strongly Disagree

Disagree

No View

Agree

Strongly Agree

4. The work conditions are inadequate for my role.

Strongly Disagree

Disagree

No View

Agree

Strongly Agree

5. My workload is higher than that of colleagues of the same organizational status.

Strongly Disagree

Disagree
No View
Agree
Strongly Agree

(Section 4 of 9) General Social Media Use

Please answer these questions to the best of your knowledge and as honestly as possible. Don't think too much on one question, as the most accurate responses are the ones that come quickly.

1. What forms of social media do you use? Check all that apply.
    Facebook
    Instagram
    Snapchat
    Twitter
    LinkedIn
    TikTok
    Other…
2. What groups of people do you follow on social media? Check all that apply.
    Friends
    Family members
    Colleagues
    Employer
    Inspirational or motivational accounts
    Celebrities/influences
    Individuals you admire
    Other…
3. How many hours do you typically spend on social media every day?
    None
    Less than 1
    1-2
    3-4
    5-6
    More than 7
4. How many hours do you typically spend on social media while at work?
    None
    Less than 1

1-2

3-4

5-6

7+

5. In what ways does social media impact your day-to-day life?

6. How do you feel after using social media, in comparison to your feelings before using social media?

(Section 5 of 9) Social Media Usage

Indicate how applicable the following statements are to your usage of social media. Please answer these questions to the best of your knowledge and as honestly as possible. Don't think too much on one question, as the most accurate responses are the ones that come quickly.

1. I feel an urge to use social media more and more.

Not true at all

Rarely

Sometimes

Often

Very true

2. I use social media in order to forget about personal problems.

Not true at all

Rarely

Sometimes

Often

Very true

3. I have tried to cut down on the use of social media without success.

Not true at all

Rarely

Sometimes

Often

Very true

4. I become restless or troubled if I am prohibited from using social media.

Not true at all

Rarely

Sometimes

Often

Very true

5. I use social media so much that it has had a negative impact on my job and personal life.

Not true at all
Rarely
Sometimes
Often
Very true

(Section 6 of 9) Workplace Environment

Indicate how applicable the following statements are to your workplace environment. Please answer these questions to the best of your knowledge and as honestly as possible. Don't think too much on one question, as the most accurate responses are the ones that come quickly.

1. I feel that competition between employees is excessively promoted within my working environment.

Not true at all
Rarely
Sometimes
Often
Very true

2. I feel that my performance is valued more than my feelings by my coworkers and employers.

Not true at all
Rarely
Sometimes
Often
Very true

3. My workplace encourages productivity, even during breaks.

Not true at all
Rarely
Sometimes
Often
Very true

4. Taking a day off, even if it is for illness, is frowned upon within my workplace.

Not true at all
Rarely
Sometimes
Often
Very true

5. I often feel overwhelmed by my workload, but do not take a break for fear of judgment.

Not true at all
Rarely
Sometimes
Often
Very true

(Section 7 of 9) Mental Influence

Indicate how applicable the following statements are to your personal experience. Please answer these questions to the best of your knowledge and as honestly as possible. Don't think too much on one question, as the most accurate responses are the ones that come quickly.

1. I avoid evaluations if possible and have feelings of dread when others evaluate me.

Not true at all
Rarely
Sometimes
Often
Very true

2. When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.

Not true at all
Rarely
Sometimes
Often
Very true

3. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.

Not true at all
Rarely
Sometimes
Often
Very true

4. I rarely do a project or task as well as I'd like to do it.

Not true at all
Rarely
Sometimes

Often

Very true

5. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error or form of luck.

Not true at all

Rarely

Sometimes

Often

Very true

6. It's hard for me to accept compliments or praise about my intelligence or accomplishments.

Not true at all

Rarely

Sometimes

Often

Very true

7. I'm disappointed at times in my present accomplishments and think I should have accomplished much more.

Not true at all

Rarely

Sometimes

Often

Very true

8. Sometimes I'm afraid others will discover how much knowledge or ability I really lack.

Not true at all

Rarely

Sometimes

Often

Very true

9. I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.

Not true at all

Rarely

Sometimes

Often

Very true

10. If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done.

- Not true at all
- Rarely
- Sometimes
- Often
- Very true

11. I often compare my ability to those around me and think they may be more intelligent than I am.

- Not true at all
- Rarely
- Sometimes
- Often
- Very true

12. I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.

- Not true at all
- Rarely
- Sometimes
- Often
- Very true

(Section 8 of 9) Final Thoughts

These final questions are optional.

1. Which best describes your primary career field?

For in-depth description of each career field, check https://careerwise.minnstate.edu/careers/fields.html.

- Agriculture, Food, & Natural Resources
- Business, Management, & Administration
- Communications & Information Systems
- Engineering, Manufacturing, & Technology
- Health Science Technology
- Human Services

2. Do you have any final thoughts regarding any of the topics discussed in this survey?

(Section 9 of 9) Contact

If you either want the results of the survey or are willing to be contacted for further questioning, please click the link and share your contact information. Your name and contact information will not be linked to your responses in this survey.

Link: https://forms.gle/qAZ75SH4BiYppK5V7

Appendix B: Unedited anonymous responses to free-response questions in cross-sectional survey.

**Note*. The only responses recorded below are from respondents that gave consent to having their responses shared and elaborated beyond a simple yes/no.

Q1: Do you feel that your workload has an impact on your sleep schedule (Y/N)? If yes, explain.

(5) “Yes, homework can get me staying up all night and makes me and I get no sleep”

(6) “Yes, I often process work assignments during the night which impacts my quality of sleep”

(9) “Yes, I often have no time to do homework between when I get home from school and when I have to be at work, so I find myself staying up late and doing it after I’m off which lessens the hours of sleep I’m able to get.”

(10) “Yes I tend to work extra at night”

(11) “Yes, sometimes I nap because I feel so exhausted which leads me to not being able to have a quality nights sleep”

(13) “Yes. I work in mental health, at a job that requires after hours and sometimes long hours. There is always clients that need seen and having to prioritize which case is more important than others is a lot.”

(15) “Yes, work takes up so much of my daytime that by the time I go to sleep I barely have any time for myself.”

(16) “Yes, waking up early or going to bed later than usual”

(22) “Yes, I spend time staying up late trying to get work done”

(23) “yes, i often feel like i cannot allow myself to go to sleep until i have finished all my work.”

(25) “Yes during deadlines I wake up worried”

(26) “Yes, this happens if my schedule is changed for any reason. There is an anxiety adjustment period where I can’t sleep until I get used to the new schedule.”

(28) “Yes. I sleep very little”

(32) “Yes. Sometimes I lie awake thinking about the stresses/concerns of my job.”

(34) “Yes because I’ll have to go home and do homework and I’ll have to stay up later”

(38) “Y. If there is too much going on at work, I can get anxious about personal things at bedtime.”

(39) “If the business is having a stressful time, I find it hard to sleep”

(40) “Yes, I do shift work including afternoons and overnights”

(42) “Yes, if I wake up in the middle of the night it is usually because I am thinking about work. I notice more fitful sleep and more waking up when I have higher stress levels and when I take on new projects.”

(43) “Yes - Would be called out several times a week to assist others or work double shifts.”

(44) “Y - at night when trying to sleep I usually think and dream about work”

(45) “Yes, Not enough time to complete work and focus on family”

(47)” Y, I have a lot of work besides my salaried job like school which definitely cuts into my sleep schedule”

(48) “Yes, takes a long time to wind down”

(49) “Depends on the day. Recently, I've been pretty good at managing.”

(51)” Since I take a light workload, my schoolwork has a much larger impact on my sleep schedule than my work life. However, hours I work are hours I can’t do schoolwork, so it’s a give and take situation.”

Q2: Do you feel that your workload has an impact on your personal time (Y/N)? If yes, explain.

(1) “Yes, I travel and work nights which impacts my ability to relax and be with family/friends.”

(4) “Yes in some situations because i spend time working rather than hanging out with friends.”

(5) “Sometimes, I get different amounts of work on different days”

(7) “Yes, every day of the weekend I’m at work, and I’m there from morning until close ok saturdays so I often don’t have as much time for social plans during the time where most people are free, which is the weekend.”

(8) “Y - I have less time to spend doing things I enjoy or to spend with family.”

(9) “Yes. I don’t feel I have enough personal time”

(10) “Yes, I choose to work sometimes off the clock, but that’s doing charting and case management stuff. I bring it home often. My time on the clock is mostly with my clients”

(11) “Yes. Answering questions from bosses at all hours”

(12) “Yes! It overflows my schedule, and doesn’t give me enough space to balance.”

(13) “No, I keep fairly balanced”

(14) “Yes, I feel as though everything is evolved around my work”

(16) “yes, i think that my large workload prevents me from doing all the projects i want to complete in my free time.”

(17) “Yes, sometimes I am preoccupied”

(18) “Yes, more hours at work means more preparation at home.”

(19) “yes, I close on weekends so there is little time for social events on weekend nights”

(20) “Yes. Not as much free time as I would like”

(21) “Yes because I have less of it”

(22) “Yes, can’t spend time with friends or cats complete homework”

(23) “Yes. As an owner, it is hard to prioritize personal life over business until we can afford to hire more staff.”

(24) “Yes my work requires me to drive sometimes in my day off.”

(25) “Being the owner, the business comes first. Personal comes after”

(26) “Yes, I do shift work”

(27) “Yes, it is difficult to "turn off" the working mind, and takes time to settle into true rest. Personal time is often interrupted with small work tasks that make it difficult to settle.”

(28) “Yes - Family had to adjust to me not being able to attend functions or eat meals together.”

(29) “Y - have to limit participation in other activities due to work”

(32) “Yes, don't have time for hobbies. Difficult to wake up after five hours of sleep to exercise.”

(34) “Yes, you are never truly away from work when you run your own business”

(38) “Yes - Typically don’t take personal breaks during the day. Will regularly wake up early to get a start on tasks to be done.”

(39) “yes, sometimes I am asked to do things at home during my off hours.”

(40) “Y - less free time to relax, although I am not a person who “likes” relaxing a lot.”

(41) “Yes, I will be stressed and enjoying my personal time less”

(43) “Y, I definitely have to cut back on my personal time to make room for my job.”

(44) “Yes, takes a long time to wind down & start enjoying hobbies”

(47) “Y, if I have to stay late to finish something up, I lose free time I’d have in the evening”

(48) “Y, any time at work is less personal time”

(49) “Not really. I've gotten to the point where I don't care.”

(51) “Yes, it decreases my free time.”

Q3: In what ways does social media impact your day-to-day life?

(1) “It allows me to keep up with extended family and friends and disconnect from work priorities takes time out of the day that i could be spending doing other things”

(2) “I try to use social media in a positive way, like finding new work out ideas or recipes. However, the negative impacts come with comparing yourself to people when they have something you don’t have.”

(3) “I base all my views off of it”

(5) “Mostly it irritates me, to get honest”

(7) “It keeps me from getting things done because I’ll open my phone to respond or look at one thing, or I’ll set a limit for myself as to what time I’m going to start something or get off my phone, but I always end up getting swept in and wasting so much more time than I realize on it.”

(8) “Following breaking news”

(9) “Social media brings me entertainment.”

(10) “I shop online more”

(11) “Inspire, makes me laugh, keeps me updated with news”
(12) “I admit tik tok makes me laugh sometimes when I’m in a situation that isn’t funny. It’s relatable sometimes and it helps cam me down. In the same sentence though it’s addicting and distracts me from completing a task”
(13) “Waiting for responses from people”
(14) “It’s more of a habit that I work into my day when I should be doing something more productive. Increased access to communication and media”
(16) “I get distracted easily and spend hours look through things”
(17) “i used to spend too much time on it. now i deleted instagram and tiktok.”
(18) “It has very little impact.”
(19) “It’s an emotional escape.”
(20) “Helps me stay caught up with friends/family. Also helps me advertise my business.”
(21) “None. Don't spend a whole lot of time on it.”
(23) “Keep up with friends”
(25) “It gives me a break in my day”
(27) “use it a lot”
(28) “It is an ongoing distraction.”
(29) “It doesn’t but it’s fun sometimes”
(30) “I use social media to advertise for my business”
(31) “The impulse to check social media interrupts flow. However I use social media messaging functions to keep in touch with many people, so I enjoy it to some extent. I also post on social media for my job, so there's a blurry work-life boundary there.”
(32) “may show family or friends posted pictures.”
(33) “I have gotten off that drug and dont miss it a bit”
(34) “I get news from social media and use it to network.”
(35) “I use Facebook to screen people. I follow football with instagram”
(36) “Social media is a nice tool to check up on long distance families and hear about community events. Since I don’t spend a long time each day on social media I don’t have a lot is the negative perspective.”
(37) “it helps keep me connected during the pandemic”
(39) “It helps me feel easily connected to family and friends. But, it also can be an easy distraction when I need to focus.”
(41) “Not much. Most days I do not look at SM”
(43) “It makes me feel stressed that I should be spending more time on it”
(44) “Keeps me up-to-date on family and friends”

(45) “It distracts me which is nice, but also I procrastinate with it.”

(46) “Positive influence from diverse&relatable&real people with intellectually stimulating contributions”

(48) “Lets me see what’s going on in the lives of people I care about, gives inspiration for my hobbies, keep up on current events”

(49) “I keep deleting my social media so I don't spend all my day on my phone.”

(51) “Causes me to get sidetracked and waste time”

Q4: How do you feel after using social media, in comparison to your feelings before using social media?

(2) “Sometimes positive, if I find what I’m looking for. But also sometimes negative, when I start comparing myself to others, and it appears their life is perfect.”

(4) “I usually feel a bit more lonely or left out after looking at social media”

(5) “Like I should have achieved more in life by now.”

(7) “Curious, fascinated, nervous”

(8) “I feel less stressed about what I have to do. I also feel pressured to meet a deadline”

(10) “I feel mostly indifferent, maybe even a little stressed/overwhelmed”

(11) “I would like to say better, but probably worse”

(13) “I feel angry at myself that I spent that time on social media when I could of been doing something more productive”

(15) “i often feel unproductive. most of the time i feel like i’m wasting my time.”

(16) “Usually more tired.”

(17) “Relaxed or envious just depends on the content I see”

(19) “more attached to things and more fomo”

(22) “Usually more depressed or unfulfilled.”

(24) “I always feel worse after going on Facebook. Instagram just makes me feel like I've wasted time. ("Why am I still doing this?")”

(25) “Feel OK, nice to see updates of people you care about.”

(27) “Happy, fulfilled,, joyful”

(29) “Blah”

(31) “More informed”

(32) “about the same. I am selective about who I connect with and mute/block harmful individuals”

(34) “Indifferent. I enjoy using it but I don’t necessarily feel better or worse.”

(39) “Boring, old and ugly”

(43) “Good for a bit, then bad because I’m not working.”

(46) “targeted (I will watch THIS video): good, better than before; doom-scrolling (can't stop): worse than before, empty”

(47) “Bored and drained.”

Q5: Do you have any final thoughts regarding any of the topics discussed in this survey?

(16) “i am a full-time student so my experience will be far different from someone who has an actual job.”

(24) “I struggle to use social media enough. I know that staying connected and networking is important, so I make sure to set aside time to do it. In no way have I ever craved it.”

(32) “My commute currently takes a greater toll on my mental health than my job (~2 hours each day). I currently work first shift M-F, but used to work second shift Tues-Sat, which took a much greater toll on my mental health and personal life even with a shorter commute and less overtime work.”

(49) “I would like to share that I am a student and am not a full-time worker, so my input on the work experience is probably not as valuable as others.”

Appendix C: Heavy Work Investment (HWI) Scale

(Employee Workload)

1. My workload is:

Very low [ ] Fairly low [ ] Normal [ ] High [ ] Very high [ ]

2. I feel my workload is higher than the ideal workload for my position.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

(Comparison of Workload with Colleagues)

3. My workload is higher than that of colleagues on the same organizational status.

Very much lower [ ] Lower [ ] Same [ ] Higher [ ] Very much higher [ ]

4. My workload is higher than that of colleagues on the same income level in the organization.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

5. My workload is higher than that of colleagues on lower income level in the organization.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

6. My workload is higher than that of colleagues on a higher income level in the organization.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

(Employee Area of Specialization)

7. My workload is occasioned by my unique area of specialization.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

8. There are no other employees in my organization that can perform my specific job assignments.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

9. People in my area of specialization are common.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

10. My area of specialization is unique.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

(Organization's Staff Strength)

11. My organization does not have adequate workers.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

12. Additional hands will find adequate work to do in my organization.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

(Role Alliance)

13. My pay is adequate for my status and workload.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

14. My organizational role does not match my specialization

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

15. The work conditions are adequate for my role.

Strongly disagree [ ] Disagree [ ] No view [ ] Agree [ ] Strongly agree [ ]

Appendix D: Bergen Social Media Addiction Scale (BSMAS)

1. I feel an urge to use social media more and more.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

2. I use social media in order to forget about personal problems.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

3. I have tried to cut down on the use of social media without success.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

4. I become restless or troubled if I am prohibited from using social media.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

5. I use social media so much that it has had a negative impact on my job and personal life.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

Appendix E: Clance Imposter Syndrome Scale

For each question, please circle the number that best indicates how true the statement is of you. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over.

1. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

2. I can give the impression that I'm more competent than I really am.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

3. I avoid evaluations if possible and have a dread of others evaluating me.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

4. When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

5. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

6. I'm afraid people important to me may find out that I'm not as capable as they think I am.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

7. I tend to remember the incidents in which I have not done my best more than those times I have done my best.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

8. I rarely do a project or task as well as I'd like to do it.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

9. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

10. It's hard for me to accept compliments or praise about my intelligence or accomplishments.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

11. At times, I feel my success has been due to some kind of luck.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

12. I'm disappointed at times in my present accomplishments and think I should have accomplished much more.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

13. Sometimes I'm afraid others will discover how much knowledge or ability I really lack.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

14. I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

15. When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

16. If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

17. I often compare my ability to those around me and think they may be more intelligent than I am.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

18. I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

19. If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

20. I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.

Not true at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Very true [ ]

(Scoring the Impostor Test)

The Impostor Test was developed to help individuals determine whether or not they have IP characteristics and, if so, to what extent they are suffering.

After taking the Impostor Test, add together the numbers of the responses to each statement. If the total score is 40 or less, the respondent has few Impostor characteristics; if the score is between 41 and 60, the respondent has moderate IP experiences; a score between 61 and 80 means the respondent frequently has Impostor feelings; and a score higher than 80 means the respondent often has intense IP experiences. The higher the score, the more frequently and seriously the Impostor Phenomenon interferes in a person's life.

Appendix F: Further categorical analysis of data, using four two-way frequency tables.

(a) Perceived Workload

	L PWO	H PWO
L SMA	0.818	0.630
M SMA	0.182	0.296
H SMA	0.000	0.074
L TP	0.500	0.111
M TP	0.500	0.778
H TP	0.000	0.111
L IS	0.273	0.185
M IS	0.454	0.444
H IS	0.273	0.371

(b) Social Media Addiction

	L SMA	M SMA	H SMA
L PWO	0.514	0.333	0.000
H PWO	0.486	0.667	1.000
L TP	0.309	0.250	0.000
M TP	0.601	0.667	1.000
H TP	0.090	0.083	0.000
L IS	0.314	0.000	0.000
M IS	0.486	0.417	0.000
H IS	0.200	0.583	1.000

(c) Toxic Productivity

	L TP	M TP	H TP
L PWO	0.786	0.324	0.000
H PWO	0.214	0.676	1.000
L SMA	0.789	0.706	0.667
M SMA	0.211	0.235	0.333
H SMA	0.000	0.059	0.000
L IS	0.357	0.177	0.000
M IS	0.571	0.382	0.667
H IS	0.072	0.441	0.333

(d) Imposter Syndrome

	L IS	M IS	H IS
L PWO	0.546	0.455	0.379
H PWO	0.454	0.546	0.621
L SMA	1.000	0.227	0.438
M SMA	0.000	0.773	0.500
H SMA	0.000	0.000	0.060
L TP	0.454	0.364	0.060
M TP	0.546	0.546	0.875
H TP	0.000	0.091	0.060

Figure 8. Two-way frequency tables for each factor.

Four two-way frequency tables are shown in Figure 8 above, which demonstrate how different levels of each of the four factors are influenced by the other three factors. The second table (b, demonstrating 'Social Media Addiction') shows that low SMA has no clear effect on PWO (L SMA + L PWO = 0.514, L SMA + H

PWO = 0.486), while moderate SMA has a slight effect (M SMA + L PWO = 0.34, H SMA + H PWO = 0.66). These assumptions were confirmed with a Chi-Square analysis of variance test that showed there was no statistically significant difference between PWO levels in relation to SMA (X^2 (1, N = 51) = 1.1752, p = 0.27835 > 0.05) at a 0.05 significance level. We can conclude that SMA has no effect on PWO when acting alone and when taking no other variables into account.

It is clear from the third table (c, demonstrating 'Toxic Productivity') that those categorized as 'low TP' are significantly more likely to also be categorized as having 'low PWO' (((L PWO | L TP) = 0.786)), while all respondents categorized as 'high TP' were also categorized as 'high PWO' ((H PWO | H TP) = 1). The theory that 'toxic productivity' had a significant influence on PWO was confirmed in a Chi-Square analysis of variance test that showed a statistically significant relationship between the two (X^2 (1, N = 51) = 8.5326, p = 0.00346 < 0.05) at a 0.05 significance level. Thus, toxic productivity has a significant influence on perceived work overload, even without taking other terms into account.

The final table (d, demonstrating 'Imposter Syndrome') showed that there was little to no difference in PWO when the respondent was categorized as experiencing low or moderate IS (around 50% +/- 5% when IS is L/M), with high IS having a slight effect (H IS + L PWO = 0.38, H IS + H PWO = 0.63). This data was confirmed with a Chi-Square test (X^2 (1, N = 51) = 0.7705, p = 0.680265 > 0.05) when there was no statistically significant relationship between the two factors at a 0.05 significance level.