

Mental Health, Alcohol Use, Workplace Bullying and Attitude toward Mental Health Help-Seeking in French Apprentices

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Abstract

Young people are at heightened risk for mental health problems. Among them, apprentices in some cases meet working conditions with significant challenges to mental wellness at a critical developmental period. Although mental health issues have been well documented in higher education students, this is not the case for apprentices. The present experiment thus aimed to fill the gap of available information between the two populations. More specifically, we aimed to provide a topic overview of French apprentices' mental health and well-being, to examine the prevalence of workplace bullying in French apprentices and its' associations with mental health difficulties, and to explore apprentices' attitudes toward help-seeking in order to inform the development of online intervention relevant to apprentices. Main results show that apprentices have poor mental health and that age, gender and business sector act as risk factors, with apprentices aged 18 - 25 years, female apprentices and apprentices in the tertiary sector experiencing higher levels of distress and lower levels of well-being. Results also reveal a high prevalence of workplace bullying associated with psychological distress, alcohol use and maladaptive stress management strategies. Finally, although apprentices are not reluctant to seek help from mental health professionals, the workplace is not considered as a setting where to find help. However, digital self-help programs could fit well with the daily lifestyle and interests of apprentices. Practical recommendations to address mental health issues in apprentices are discussed within a comprehensive framework including community mental health awareness, digital mental health intervention, and workplace prevention programs.

Keywords

Help-Seeking Behavior, Workplace Bullying, Mental Health, Alcohol Use, Apprentices, Covid-19 Pandemic

1. Introduction

1.1. Apprentices' Vulnerability to Mental Health Problems

Young people are recognized as being particularly vulnerable to mental health disorders with 75% of mental disorders starting by the age of 24 (Fusar-Poli, 2019; Solmi et al., 2022). Although apprentices fall into the same of “young adult” age group, apprentices experienced poorer health behaviors such as smoking, alcohol consumption and cannabis use (O'Rourke et al., 2022a; Spilka et al., 2018; Pidd et al., 2014) and poorer mental health than other young adults (Kovess-Masfety et al., 2016; Pidd et al., 2017). There were 733,200 apprentices in France in 2021, 38% more than in 2020. Apprenticeship is a dual education system combining vocational education at a vocational school and on-the-job training in a company. As young people, apprentices simultaneously face a series of life transitions that made them vulnerable to mental health problems. However, being part of the work force means apprentices face additional challenges. For example, the transition from school to work is a developmental challenge that may present risk factors to mental health (Deady et al., 2020a; Einboden et al., 2021). Furthermore, apprentices are exposed to workplace situations that negatively impact their mental health and well-being. Indeed, apprentices described poor working conditions including long working days, financial stress due to low wages, job insecurity, unrealistic expectations, workplace hierarchies and bullying as the main challenges to their mental health (Choi et al., 2022; Einboden et al., 2021). Despite these considerations, there is a lack of research on the mental health of apprentices and their help-seeking behaviors. Most of studies focused on apprentices in industry. The industry culture is dominated by traditional masculine beliefs such as self-reliance and stoicism, which serve as a barrier to help-seeking (Ross et al., 2019). Apprentices in these male-dominated industries (e.g., construction, transport and utilities, manufacturing) experienced elevated levels of psychological distress (Considine et al., 2017), depression (Roche et al., 2016), alcohol use disorders (Roche et al., 2012), and suicide (Ross et al., 2022).

1.2. The Covid-19 Pandemic Effects on Mental Health Problems

A growing body of evidence indicates that the mental health of young adults has been particularly affected by the Covid-19 pandemic and the associated restrictive measures (e.g., state-enforced lockdowns and quarantine, closure of schools and businesses, limits on social gatherings) (e.g., O'Connor et al. (2021); Solomou & Constantinidou (2020)). Studies reported increased levels of anxiety, de-

pression, and suicidal thoughts among young adults (Glowacz & Schmits, 2020; Lee et al., 2020; Wathélet et al., 2020) and highlighted the need for extensive prevention and mental health care for this age group. Results also suggest a serious deficit in access to mental health services among this population already occurring before the pandemic and increased at the time of the Covid-19 pandemic (Alleaume et al., 2021; Coulaud et al., 2022). The significant increase in mental health needs due to the pandemic, combined with the pre-pandemic weaknesses in mental health care systems, may have contributed to significant increases in unmet mental health needs among young adults (OECD, 2021). Indeed, mental health systems are typically under-resourced, and they have further deteriorated during Covid-19 (Xiong et al., 2020). In addition to these structural barriers (limited available provision, long waiting lists associated to under-resourced systems), attitudinal factors such as a preference for self-reliance, difficulty expressing thoughts and feelings, and stigma are major barriers to access to mental health services in young adults (Theurel & Witt, 2022; Clement et al., 2015; Salaheddin & Mason, 2016). It then is critical to find alternative ways to assist young adults who are not receiving help.

The Covid-19 pandemic has been doubly challenged for apprentices as they have had to cope with changes both at work and at vocational school (Haider et al., 2022). Two recent studies on the mental health of Austrian apprentices of different work sectors during the Covid-19 period revealed 48% were over the cut-off for clinically relevant depressive symptoms, 35% for anxiety, 50% for disordered eating, and 27% for insomnia (Dale et al., 2021) and 13% experienced problematic drinking (O'Rourke et al., 2022b). Another study in German apprentices revealed they were more worried and that their satisfaction with life in general, social contacts and work decreased significantly compared to the pre-pandemic situation (Hochmuth et al., 2022).

1.3. For a Comprehensive Understanding of the Attitudes of Apprentices toward Help-Seeking

The impact of the pandemic on apprentices' mental health is still poorly researched as well as the barriers and facilitators to help-seeking experienced by apprentices. Furthermore, there is the additional question of the extent to which there are gender and work sector differences. There is potential for prevention of mental health issues for young apprentices, but a comprehensive understanding of the mental health challenges faced by apprentices and of the attitudes of apprentices toward help-seeking is needed. Prevention delivered via the internet may be a good way of engaging apprentices, as recent review (Montagni et al., 2020; Pretorius et al., 2019) suggest that seeking mental health-related information and self-help information on the internet becomes relatively common behaviour among young people. Digital mental health interventions may be more acceptable to apprentices as an accessible tool to self-manage their mental health with the advantages of privacy and anonymity and ease of access and can overcome attitudinal factors that prevent young adults from seeking help (e.g.,

Theurel & Witt (2022)). However, little is known about the attitudes of apprentices toward using internet or digital program self-help program and the content that would engage them.

One of the rare studies that have addressed this issue revealed interesting and sometimes unexpected findings, suggesting that further investigations are needed to better understand apprentices' needs in prevention and response to mental health problems. Choi et al. (2022) revealed that coping strategies preferred by apprentices are not those targeted by currently available apps. Although apps often focused on negative issues related to mental health problems such as depression and anxiety (e.g., Leech et al. (2021)), apprentices are calling for positive well-being, behavioural activation and mindfulness-based content. Apprentices are also interested in psycho-educational interventions to develop psychosocial skills and prefer when exercises take the form of short, practical and action-based activities. The authors also identified some ergonomic adaptations making accessibility greater for apprentices and improving engagement and acceptability. However, and as said earlier, because most of available findings have been collected in a limited number of countries (e.g., Australia) and for apprentices from male-dominated works sectors (e.g., industry), the generalizability of these findings remains questionable.

1.4. The Present Study

Recent studies thus showed that one quarter of Australian apprentices suffer bullying in the workplace, and that apprentices were at high risk for poor mental health and alcohol use. Bullying in apprentices was significantly associated with greater psychological distress and substance use (e.g., Ross et al. (2021)). Fortunately, exploring apprentices' attitude toward mental health help-seeking revealed promising directions to design efficient interventions in this population (Choi et al., 2022). However, one may ask whether these findings apply for French apprentices. This provides a clear rationale for combining these aspects, namely mental health, alcohol use, workplace bullying and attitude toward mental health help-seeking, to carry out investigations in French apprentices in the present study.

The first aim of this study is to provide a topic overview of French apprentices' mental health and well-being. As workplace bullying emerged as a key theme for young workers (Pidd et al., 2017; Ross et al., 2021), the second aim was to examine the prevalence of workplace bullying in French apprentices and its' associations with key mental health variables in this vulnerable group (e.g., alcohol use, well-being, psychological distress). In order to inform the development of online intervention that is acceptable and relevant to apprentices, the third aim of this study is to explore apprentices' attitudes toward help-seeking and their interest in using a digital program to support their mental health.

2. Methods

2.1. Participants and Procedure

In May 2021, French apprentices were invited to complete a self-administered

questionnaire online using Survey Monkey software. The first page of the survey provided study information, assuring apprentices that participation was voluntary and anonymous. A total of 372 apprentices responded to the survey. Inclusion criteria were that participants had to be in current apprenticeship, fluent in French and having an access to the Internet at home or a smartphone. Responses with large portions of missing data were excluded, with a final sample of 260 apprentices (178 women) with an average age of 21.83 years (range 16 to 48 years) kept for analyses. Demographics for the final sample are presented in **Table 1**.

2.2. Measurement

Participants completed an anonymous online survey which included demographic items and two parts assessing 1/apprentices' mental health, alcohol use and work psychosocial factors (bullying) and 2/apprentices' help-seeking behaviors and attitudes toward using digital mental health.

2.2.1. Mental Health, Alcohol Use and Workplace Bullying

Psychological distress

Table 1. Demographic characteristics of the sample (N = 260).

	N	%
Gender		
Male	82	31.5
Female	178	68.5
Age group		
Up to 17	25	9.6
18 - 25 years	202	77.7
26 - 39 years	29	11.1
40 years and over	4	1.5
Work sector		
Tertiary		
Trade, banking, insurance	118	45.4
Information, media, technology, marketing	40	15.4
Education, care, hospitality	74	28.4
Secondary		
Agriculture	3	1.2
Mechanical, electrical	8	3.1
Construction	3	1.2
Manufacturing	14	5.4

The Kessler 6-item is a shortened version of the K-10 scale, which is a global measure of psychological distress based on depression and anxiety symptoms. The maximum score is 24. A score of 13 or higher indicates the likelihood of a psychological disorder, while a score of less than 13 indicates that severe mental illness is unlikely; studies generally use a score of 8 to 12 to indicate moderate distress (Kessler et al., 2010).

Well-being

The WHO-5 Well-Being Index (Krieger et al., 2014) was used as a brief 5-item scale to assess positive well-being over the previous 2 weeks. The five-point response scale ranges from “At no time” to “All of the time.” A score of less than 13 indicates a low level of well-being (e.g., Halliday et al. (2017)).

Stress management

Participants were asked the extent to which they agreed several stress management activities helped them to manage their stress. Two type of stress management activities were presented: adaptive stress management (e.g., being with family or friends, being in nature) and maladaptive stress management (e.g., smoking, recreational drugs).

Self-rated mental health

Participants were asked to self-rate their mental health on a 5-point Likert scale (very good, good, average, bad, and very bad) and to assess the frequency of negative psychological state experienced over the preceding month (stressed, tired, low mood) using a 5-point scale from “never” to “daily or nearly daily”.

Alcohol use

The Alcohol Use Disorders Identification Test-Concise (AUDIT-C) is a brief screening instrument that reliably identifies individuals who are hazardous drinkers or have active alcohol use disorders (including alcohol abuse or dependence). The AUDIT-C has 3 questions and is scored on a scale of 0 - 12. Each question has 5 answer choices valued from 0 to 4 points. In men, a score of 4 or more is considered positive, which is optimal for identifying hazardous drinking or active alcohol use disorders. In women, a score of 3 or more is considered positive. Generally, the higher the score, the more likely it is that a person’s drinking habits affect his or her safety (Bush et al., 1998).

Workplace bullying

As studies suggested that young adults are more susceptible to psychosocial stressors such as bullying and harassment (Pidd et al., 2017; Ross et al., 2021), nine items adapted from the Negative Acts Questionnaire-Revised (NAQ-R) (Einarsen et al., 2009) were used to assess work psychosocial factors and covered two categories of bullying behaviors: work-related bullying (6 items: “Had information withheld that affected your performance”, “Been exposed to an unmanageable workload”, “ordered to do work below your level of competence”, “Given tasks with unreasonable/impossible targets/deadlines”, “Had your opinions and views ignored”, “Had your work excessively monitored” and person-related bullying (3 items: “Been reminded repeatedly of your errors or mistakes”, “Been ignored, excluded or isolated from others”, “Had key tasks re-

moved, replaced with more trivial unpleasant tasks”. Item responses were measured on a 5-point Likert scale from “never” to “daily or nearly daily”. According to Gupta et al. (2017) calculation, apprentices with scores below 16 are not bullied, apprentices with scores between 16 and 23 are occasionally bullied, and apprentices with scores above 23 are severely bullied at work.

2.2.2. Help-Seeking Behaviours and Attitudes toward Using Digital Mental Health

Help-seeking behaviours

Help-seeking behaviours were assessed by asking participants how they seek help when dealing with emotional or psychological issues. Participants were presented with the following multi-choice answers: “I talk to a friend about it”, “I talk to someone in my family about it”, “I talk to my GP about it”, “I seek help from a mental health professional (psychologist/psychiatrist)”, “I use a phone counselling service”, “I am looking for information that can help me on the internet”, “I’m waiting the problem would get better by itself”.

Barriers to engaging in mental health promoting activities

Participant were asked to indicate, using a 5-point Likert scale from “strongly disagree” to “strongly agree”, barriers that prevent them from engaging in activities that promote their psychological well-being.

Attitudes toward using digital mental health

Participants were asked whether they had ever looked for online information about their mental health. Participants were also invited to specify the mental-health related topics they had searched for on the internet: sleep problems, risks concerning alcohol, tobacco and e-cigarette, cannabis and other synthetic drugs, stress, anxiety or depression, work engagement and work bullying. Then, participants were asked whether they had ever used a website or an app to improve their mental health or a mental health-related app (e.g., sleep, well-being).

Participants were also asked to rate their interest in using a digital program focusing on self-help tools to improve their mental health and well-being with the following questions: Would you consider taking part in a program like that? Do you think a program like that is something you might need today? If a program like this was available today, how often would you use it? How much time per week do you think you would use it? Finally, participants were asked to rate their interest in various features of the digital program: finding out education about mental health; ways to seek help; assessing their level of well-being, monitoring their mental health in real time, self-help tools to manage their mental health and improve their well-being, gamification, and sharing progress and wellness challenges on social networks with items scored on a 5-point Likert scale from “not at all interested” to “extremely interested”.

3. Results

3.1. Mental Health, Alcohol Use and Workplace Bullying

To test for associations between workplace bullying and mental health variables,

Pearson's bivariate correlations were conducted. **Table 2** shows that psychological distress, maladaptive stress management, and alcohol use were all positively and significantly correlated with self-reported bullying. In contrast, well-being was significantly negatively correlated with bullying.

Table 3 shows the mean scores (and SD) of self-reported bullying (NAQ-R), psychological distress (K6), well-being (WHO-5), alcohol use (AUDIT-C) and maladaptive stress management by demographic and apprenticeship variables. One-way ANOVAs were conducted to compare workplace bullying, psychological distress, well-being, alcohol use and maladaptive stress management between apprentices in different demographic groups.

Table 2. Correlations between self-reported bullying (NAQ-R) and other variables.

	<i>Pearson's r</i>	<i>p value</i>
Psychological distress (K6)	.45	<.001
Well-being (WHO-5)	-.30	<.001
Alcohol use (AUDIT)	.15	<.05
Adaptive stress management	-.11	.11
Maladaptive stress management	.18	<.01

Table 3. Mean scores (and SD) of self-reported bullying, psychological distress, well-being, alcohol use and maladaptive stress management by demographic and apprenticeship variables.

	Workplace bullying (NAQ-R)	Psychological distress (K6)	Well-being (WHO-5)	Alcohol use (AUDIT-C)	Maladaptive stress management
Total sample	17.70 (7.26)	9.53 (5.65)	11.68 (5.38)	2.76 (2.56)	7.45 (3.88)
Gender					
Male	17.45 (7.52)	7.61 (5.17)	13.27 (5.55)	3.66 (2.95)	8.10 (4.37)
Female	17.80 (7.18)	10.29 (5.67)	11.05 (5.19)	2.39 (2.29)	7.19 (3.65)
Age group					
Up to 17	15.68 (8.67)	6.11 (5.41)	15.21 (5.05)	1.16 (2.09)	4.74 (2.75)
18 - 25 years	18.00 (7.28)	10.21 (5.71)	11.40 (5.38)	2.91 (2.59)	7.94 (3.98)
26 - 39 years	17.35 (6.38)	7.42 (3.91)	11.12 (4.63)	3.19 (2.30)	6.54 (3.01)
40 years and over	16.67 (2.89)	10.67 (6.66)	10.33 (8.02)	.33 (.58)	5.00 (1.00)
Work sector					
Tertiary					
Trade, banking, insurance	18.41 (7.37)	10.42 (6.13)	10.94 (5.80)	2.77 (2.45)	7.51 (3.97)
Information, media, technology, marketing	17.19 (7.77)	9.75 (5.29)	12.17 (4.33)	3.00 (2.40)	7.42 (3.10)
Education, care, hospitality	17.13 (6.54)	9.03 (5.04)	11.52 (5.09)	2.78 (2.49)	7.71 (3.87)
Secondary	16.95 (8.22)	6.30 (4.57)	14.95 (4.85)	2.20 (3.53)	6.40 (4.74)

Psychological distress and well-being

Results showed that, based on the cut-off scores of the K6 and the WHO-5, 27.19% of apprentices experienced severe psychological distress and 54.38% had low levels of well-being. Results from the ANOVAs revealed significant age group, gender and work sector effects on the mean score of psychological distress and well-being. Women experienced a higher level of psychological distress ($M = 10.29$, $SD = 5.67$) and a lower level of well-being ($M = 11.05$, $SD = 5.19$) than men ($M_{distress} = 7.61$, $SD = 5.17$ and $M_{well-being} = 13.27$, $SD = 5.55$), respectively $F(1, 215) = 10.36$, $p < .01$, $\eta_p^2 = .05$ and $F(1, 215) = 7.84$, $p < .01$, $\eta_p^2 = .03$. The age groups of 18 - 25 years ($M = 10.21$, $SD = 5.71$) and 40 years and over ($M = 10.67$, $SD = 6.66$) experienced a higher level of psychological distress than other age groups, $F(3, 213) = 4.61$, $p < .01$, $\eta_p^2 = .07$. The age group of up to 17 experienced a higher level of well-being ($M = 15.21$, $SD = 5.05$) than other age groups, $F(3, 213) = 3.13$, $p < .05$, $\eta_p^2 = .04$. The tertiary sector, and more particularly the work sector of trade, banking and insurance ($M = 10.42$, $SD = 6.13$) experienced the highest level of psychological distress, $F(3, 213) = 3.26$, $p < .05$, $\eta_p^2 = .04$, and the lowest level of well-being ($M = 10.94$, $SD = 5.80$), $F(3, 213) = 3.30$, $p < .05$, $\eta_p^2 = .04$.

Stress management

Results from the ANOVAs showed that age group had significant impact on the frequency of use of maladaptive stress strategies, $F(3, 213) = 5.16$, $p < .01$, $\eta_p^2 = .07$. The age group of 18 - 25 years more frequently use maladaptive stress management strategies (e.g. drinking, doing nothing) than other age groups.

Self-rated mental health

Results showed that 38% of apprentices reported feeling psychologically well (27.65%) or very well (10.60%) whereas 28% reported feeling not well (19.82%) or very badly (8.76%). Results also showed that 65% of the apprentices reported to feel stress, fatigue or low mood most of the time (30.81%) or almost all the time (34.60%).

Alcohol use

Results showed that 44.45% of the apprentices experienced hazardous drinking. Results from the ANOVAs revealed significant differences in the mean score of alcohol use between age groups, $F(3, 213) = 3.99$, $p < .01$, $\eta_p^2 = .05$, and gender $F(1, 215) = 11.41$, $p < .01$, $\eta_p^2 = .05$. Men ($M = 3.66$, $SD = 2.85$) had a higher alcohol consumption than women ($M = 2.39$, $SD = 2.29$). The age groups of 18 - 25 years ($M = 2.91$, $SD = 2.59$) and 26 - 39 years ($M = 3.19$, $SD = 2.30$) had higher alcohol consumption than others age groups. Apprentices with severe psychological distress symptoms were more likely to be over the cut-off for problematic alcohol use than those without ($\chi^2(1) = 4.78$, $p < .05$). This association between psychological distress and problematic drinking was significant for men ($\chi^2(1) = 5.68$, $p < .05$) apprentices but not for women ($\chi^2(1) < 1$, $p = .77$). Among men apprentices experiencing severe psychological distress, 70% were over the cut-off for problematic alcohol use, compared to 28% among men ap-

prentices without psychological distress.

Workplace bullying

Based on the cut-off scores calculated, the results of the present study revealed that about 51% (female: 49%; male: 55%) of the apprentices reported as never bullied at work, 31% (female: 34%; male: 24%) being occasionally bullied at work, and 18% (female: 17%; male: 21%) as severely bullied. Overall, around 49% of the apprentices were found to be exposed to bullying at workplaces either occasionally or frequently (female: 51%; male: 45%). Results from the ANOVAs revealed no significant differences between apprentices in different demographic groups (all F s < 1).

Apprentices exposed to severe bullying were more likely to experience severe psychological distress ($\chi^2(1) = 32.98, p < .001$) and to be over the cut-off for problematic alcohol use than those who reported as never bullied at work ($\chi^2(1) = 3.63, p < .05$). Among apprentices exposed to severe bullying, 52.5% were experiencing severe psychological distress and 57.5% problematic drinking compared to 15.5% and 42.5% respectively, among apprentices that reported as never bullied at work. The association between bullying and problematic drinking was significant for men ($\chi^2(1) = 4.06, p < .05$) apprentices but not for women ($\chi^2(1) < 1, p = .36$). Among men apprentices that reported severe bullying, 81.5% were over the cut-off for problematic alcohol use, compared to 23% among men apprentices that reported as never bullied at work.

3.2. Help-Seeking and Attitudes toward Using Digital Mental Health

Help-seeking behaviours

When dealing with emotional or psychological issues, most of the apprentices prefer to ask for help from their friends (69%) or a family member (56%). Regarding on professional help, 47% of the apprentices reported they would seek help from a mental health professional (psychologist/psychiatrist) and 38% from their general practitioner. The search for mental health support at work is less common with only 28% of apprentices searching help from a colleague and only 13% talking about their emotional or psychological issues to their manager. Only 8% would use a helpline compared to 26% who would seek help on the internet. Around 1 in 5 apprentices say they would not seek help when dealing with emotional or psychological issues.

Barriers to engaging in mental health promoting activities

The percentage of all participants reporting the degree to which each barrier item would “stop, delay, or discourage” them from engaging in activities that promote their psychological well-being is presented in **Table 4**.

Results showed that the three major barriers to engage in activities promoting psychological well-being were the lack of time (33.9% of the respondents), the financial costs (27.9%) and the lack of motivation (17.4%) as major barriers to engage in activities promoting their psychological well-being.

Table 4. Percentage of participants reporting each barrier to engage in mental health promoting activities.

Barrier item	Reporting item as not at all a barrier %	Reporting item as a barrier to any degree %	Reporting item as a major barrier %
Not being able to afford the financial costs	13.6	76.0	27.1
Unsure which activities could improve my mental health	21.0	65.4	7.8
Difficulty to find time with my other duties	5.8	87.9	33.9
Lack of motivation to engage in mental health-promoting activities	9.3	76.4	17.4
Fear of being judged by others	27.7	50.8	11.7

Attitudes toward using digital mental health

Concerning the use of digital mental health, 45% of apprentices reported to have already searched for Web-based information about their mental health. The most searched topics were stress management (44%), sleep problems (42%), anxiety or depression (34%); engagement in work and studies (29%), risks concerning substance use (8%) and bullying (4%). Results also showed that 41% of respondents reported to have already used a well-being app. Among them, 23% mentioned app focused on relaxation and mindfulness meditation (e.g., Headspace) and 23% reported using fitness program or monitoring apps, such as Apple IOS Health or Garmin. Only 2% reported using an app to improve their sleep and 2% using a digital program that provides self-help tools to improve mental health (ETUCARE).

Apprentices expressed strong interest in using an app for managing their mental health with 66% of respondents that expressed a need for a website or application to improve their mental health and 81% reported they would use a digital mental health program if it was available today. In terms of frequency of use, 5% of respondents reported they would use a digital mental health program every day, 26% several times a week, 33% once a week and 36% once a month. Almost half of the respondents (48%) would use a digital mental health program for 15 to 30 minutes a week, 32% less than 15 minutes a week. Only 15% would use it for 30 - 45 minutes per week and 5% up to an hour per week.

Regarding on app features, the greatest level of interest among apprentices was in finding out education about mental health with 89% of respondents “very, or extremely interested” in this feature. Assessing well-being level, self-help strategies to manage or prevent mental health issues, and monitoring mental health on daily basis were also associated with high levels of interest, with respectively 88%, 77% and 75% reporting greater interest. Education about ways to seek mental health if needed and gamification were less popular elements with 51% and 50% of apprentices expressing high level of interest for these features, respectively. Sharing progress and wellness challenges on social networks were the least popular elements with 5% and 34% of apprentices interested in these features.

4. Discussion

Overall, this sample of French apprentices showed relatively poor mental health with 65% of apprentices reported feeling stress, fatigue, or low mood daily or nearly daily and 28% reported experiencing a poor mental health. Self-rated mental health was confirmed by psychometric scales (K6, WHO-5) revealing that in the total sample, 27% were over the cut-off for severe psychological distress and 54% experienced low levels of well-being. These results are comparable to findings on other young adults in France. For example, in a study conducted in February 2021, 34% of French university students experienced severe psychological distress (Theurel et al., 2022).

The present study allowed exploration of whether certain types of work sector or demographic groups were more likely to experience poor mental health. Results are line with recent research (e.g., Dale et al. (2021)) showing that female apprentices showed poorer mental health than males. In the present study, female experienced higher level of psychological distress and lower level of well-being than males. Work sector and age group had also an effect on mental health. Apprentices from the tertiary sector, and more particularly the work sector of trade, banking and insurance, showed the highest level of psychological distress and the lowest level of well-being. The latter result is novel in that most of studies on apprentices' mental health focused on male-dominated industry (e.g., construction, manufacturing, etc). Regarding on the age factor, young apprentices aged 18 - 25 years appeared as the most vulnerable group as they experienced at the same time high level of psychological distress, alcohol use and used more frequently maladaptive stress management strategies compared to other age groups. The present results support previous studies showing that young adults are more vulnerable to stress and are more at risk of poor mental health as a result of the pandemic (Glowacz & Schmits, 2020; Varma et al., 2021).

The survey also allowed to determine the prevalence of workplace bullying in French apprentices and whether bullying was associated with poorer mental health outcomes. In our sample, around 49% of the apprentices were exposed to bullying at workplaces either occasionally or frequently. All demographic groups and work sectors experienced bullying. Workplace bullying appears as a major risk factor for apprentices' mental health and well-being. Correlational analyses revealed bullying was positively associated with greater psychological distress, alcohol use and maladaptive stress management strategies and negatively associated to well-being. Like in previous studies (Ross et al., 2021), significant correlations between workplace bullying and mental health outcomes and maladaptive stress management strategies, including problematic alcohol use, suggest causal relations and argue for a comprehensive policy against bullying in the workplace, including targeted prevention actions for employers. Nonparametric analyses revealed that apprentices exposed to severe bullying were more likely to experience severe psychological distress and to be over the cut-off for proble-

matic alcohol use than those who reported as never bullied at work. Previous studies suggested that alcohol is used as a self-medication to cope with life stressors (Robinson et al., 2011), increasing the risk of developing mental health problems. In the present study, the association between problematic drinking and bullying is only significant for men, not women, suggesting that coping with work stressors using alcohol is a specific pathway to psychological distress among men apprentices. Results of the present study add to evidence on the adverse implications of workplace bullying for the mental health and well-being of apprentices (Pidd et al., 2017; Riggall et al., 2017; Ross et al., 2021) and reveal that workplace bullying is not limited to male-dominated industry (e.g., construction) but is experienced by apprentices from diverse work sectors.

The present study also supports evidence from a large body of research demonstrating a strong link between problematic drinking and mental health problems with a high prevalence of co-occurring mental health disorders and alcohol use among young adults (e.g., Esmaeelzadeh et al. (2018)). Indeed, results showed apprentices with severe psychological distress symptoms were more likely to be over the cut-off for problematic alcohol use than those without. The adolescent/young adult brain is still developing, and there is evidence to suggest that frequent use of alcohol at this age increases the risk for developing mental health disorders (e.g., Brière et al. (2014); Esmaeelzadeh et al. (2018); Pedrelli et al. (2016)). Unfortunately, alcohol use appears to be common among French apprentices, with 45% of the total sample reporting problematic drinking.

Despite evidence that apprentices experienced a poor mental health, around 1 in 5 apprentices reported not seeking help when dealing with emotional or psychological issues. In terms of resources, apprentices mostly seek help from their friends and family, but an important proportion reported they would also seek help from mental health professionals whereas workplace was not considered as a setting where to find help. This finding confirmed previous studies showing young people are more likely to seek help from their friends and for psychological and emotional problems than from other sources (Haider et al., 2022; Theurel et al., 2022). The proportion of apprentices reporting they would seek professional help (i.e. 47% would seek help from a mental health professional and 38% from their general practitioner) is contradictory with previous findings (Haider et al., 2022) showing only around 3% of apprentices reported they actually consulted professional help, suggesting an intention-behaviour gap in seeking mental help (Tomczyk et al., 2020).

Seeking mental health-related information on the internet was a relatively common behavior among apprentices, with 45% of apprentices having looked for mental health-related information online at least once in his(her) life. Most searched topics were stress management, sleep problems, anxiety and depression, engagement in work and studies, risks concerning substance use and bullying. Consistent with previous research (Choi et al., 2022), there was a high lev-

el of interest among apprentices in using an app or a digital program for managing their mental health. Regarding on digital tool features, providing education about mental health, assessing well-being and mental health level and self-help strategies to manage or prevent mental health issues were associated with high levels of interest among apprentices. As our sample of apprentices reported lack of time, financial costs and lack of motivation as major barriers to self-care approach, digital mental health should provide free resources and activities offered also need to be of appropriate length, easily integrated into the daily life of apprentices, customizable and tailored to meet the needs of apprentices and facilitate engagement.

Although several limitations to the study should be considered when reviewing the results, this study has provided some rich quantitative information that contributes to the understanding of workplace stressors experienced by French apprentices, their impact on apprentices' mental health and alcohol use as well as apprentices' attitudes toward seeking help and toward using an app to support their mental health in order to inform app content. Limitations of this study include the use of an online survey that might have introduced sources of bias, such as not capturing apprentices who lack access to the internet or those who cannot proficiently use technology. In addition, participants were informed that this study was focused on mental health, so it is likely there was a bias toward apprentices who were more comfortable discussing these issues. The online nature of the study, although allowing for a large sample collected without direct social contact, only included self-reported measures of mental health. Structured clinical interviews would have provided a more objective measure of mental health and alcohol use problems. The sample sizes of some sub-groups are another shortcoming. Our sample included a very small number of mature-age apprentices (over 30 years old) and few apprentices from the secondary sector (e.g., manufacturing, construction) so the findings may be less relevant to these sub-groups. Finally, the survey was cross-sectional, preventing any conclusions regarding the impact of the Covid-19 pandemic on apprentices' mental health.

5. Practical Recommendations

The Covid-19 pandemic has led to increases in the prevalence of mental health disorders in young adults (O'Connor et al., 2021; Glowacz & Schmits, 2020). Despite having the greatest level of need, adolescents and young adults have the worst access to timely and quality mental health care (McGorry et al., 2022). Apprentices have been doubly challenged as they had to cope with both pandemic-related changes in school and work environments, resulting in increased mental health problems among these vulnerable workers (Dale et al., 2021). The findings of the present study suggest a number of ways forward to inform the development of policies and of evidence-based intervention to address mental health issues among apprentices.

Practical recommendations to address mental health issues among apprentices

can be described within a comprehensive framework including the following key elements: 1) community mental health awareness; 2) digital mental health intervention; 3) workplaces prevention programs.

Community mental health awareness

The high need of mental health care among apprentices is coupled with a low level of seeking professional help. To overcome the intention-behaviour gap in seeking help, findings suggest to foster positive attitudes toward mental health, self-efficacy and social support of mental health (Tomczyk et al., 2020). We thus suggest that the first step in reducing mental health problems among apprentices is to deliver mental health awareness program in (vocational) schools and workplaces. Such programs allow to deliver appropriate training to volunteers about mental health and how mental health problems can be recognized, prevented and responded safely and can help to make the experience of entering care less challenging and more welcoming, especially for first time users. Indeed, findings show mental health awareness campaigns can increase mental health literacy, reduce stigma, and improve help-seeking behavior (Henderson et al., 2017; Morgan et al., 2018). Given that peers are the first resource for young apprentices (Haider et al. (2022); the present study) such mental health awareness programs should focus on the development of the competences to support a friend struggling with his mental health (e.g., “be there”, <https://bethere.org/Home>) among young volunteers and work peers apprentices and anti-stigma and mental health promotion campaigns should be led by young people themselves (e.g., <https://jack.org/Home>).

Digital mental health intervention

The French mental health system is under-resourced and cannot respond to the increasing demand in mental health care among young people. The delivery of mental health care through digital technology is considered key to buffer the negative effects of the Covid-19 pandemic on population mental health (Torous et al., 2020).

As the internet becomes increasingly a part of everyday life and given the high need among apprentices for online mental health information and their preparedness to use new technologies for psychological support, a digital mental health intervention may be more acceptable to apprentices as an accessible tool to self-manage their work stress and mental health. Digital tools present several advantages such as privacy, anonymity and ease of access, and can overcome attitudinal barriers to help seeking such as self-reliance and concerns about stigma (Pretorius et al., 2019; Theurel & Witt, 2022) and thus improve access to care among apprentices. There is growing evidence that digital mental health intervention can improve general mental health, help prevent depression, anxiety and alcohol-related problem in young people (e.g., Leech et al. (2021)), and reduce mental health and stress symptoms when delivered to employees (Deady et al., 2020b; Stratton et al., 2017).

Given the workplace stressors experienced by apprentices and their tendency to use avoidant coping strategies such as alcohol use, the content of a digital

health intervention for apprentice should target the reinforcement of healthy coping strategies to manage work stress, including cognitive approaches, social connection, pleasurable activities, and self-care. Findings suggest that digital health intervention that focus on positive well-being and provide short, action-based activities incorporating mindfulness practice and cognitive behavioural therapy (e.g. behavioral activation through value-driven activities and coping skills) may be seen as more relevant and acceptable among apprentices (Choi et al. 2022; Deady et al., 2020a).

Workplaces prevention programs

Although digital mental health intervention seems to be particularly adapted to the needs of apprentices, individualised interventions are only one component of the strategies required to improve apprentices' mental health, especially when considering the high prevalence of problematic alcohol use and workplace bullying observed among apprentices. Workplace bullying and alcohol use represent two major risks for apprentices' mental health and these issues should be addressed through prevention programs in workplace settings. As recommended, workplace prevention is suitable to address mental health problems caused by work, but also to address mental health problems that arise as a result of other factors but that may be exacerbated by poor working conditions (Martin et al., 2009). Simple interventions could consist in refocusing on learning during work experiences and fostering support and recognition for apprentices' achievements in relation to knowledge and skill acquisition. Such intervention may promote occupational success and contribute to support apprentices' well-being.

Further studies are needed to better design efficient prevention programs in workplace settings to reduce bullying experienced by apprentices and to reduce the impact of bullying in these vulnerable workers. Such prevention programs may facilitate workplace cultural change among supervisors, colleagues, and apprentices and may also contribute to alleviate related issues such as alcohol use.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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