

## **Risk and Protective Factors for Burnout among Psychologists and Neuropsychologists : A Scoping Review.**

Keywords : Burn-out, Self-care, Job satisfaction, Psychologist, Neuropsychologist

### **Abstract**

Healthcare professions are emotionally demanding, requiring special skills in caring and empathy. In the healthcare field, many professions have been linked to burnout, notably through compassion fatigue. Several studies have attempted to determine what factors influence burnout among healthcare workers in general, however few focused exclusively on psychologists (PSYs) and neuropsychologists (NPSYs). This scoping review aims to better understand the determinants of burnout among PSYs and NPSYs specifically. It also aims to identify which factors allow PSYs and NPSYs to adapt and thrive at work despite the difficulties those professions bring. This research focused on burnout, job satisfaction, and well-being at work. Among the most notable results obtained from 27 scientific studies are: 1) PSYs and NPSYs are generally very satisfied at work despite high burnout rates; 2) individual factors and the work environment impact the mental health of PSYs and NPSYs; 3) self-care behaviors are favorable for job satisfaction, and they also decrease the risk of burnout. In addition, it appears that a feeling of autonomy has an important influence on burnout symptoms which is consistent with self-determination theory. In sum, this scoping review reveals that factors such as self-compassion, work-life balance, control over work and administrative tasks can reduce the risk of burnout as well as improve job satisfaction and mental health among PSYs and NPSYs.

## **Public Significance statement**

The results of the present study suggest that self-care is an important variable in both preventing burnout and promoting job satisfaction at work. Given the importance of psychologists' and neuropsychologists' service to the public, it is deemed essential that they take care of their own mental health while caring for others. It is also essential that the work environment allow these professionals to meet their psychological needs in the workplace.

## **Introduction**

In the healthcare field, there are many professions whose main objective is to care for others. These are generally referred to as healthcare professionals, many of whom derive their sense of duty and fulfillment from taking care of others. Unfortunately, several studies have revealed a high prevalence of burnout among healthcare professionals such as psychologists (PSYs) and neuropsychologists (NPSYs; Kumary & Baker, 2008; Lee et al., 2011; Marra et al., 2023; Maslach et al., 2001; Trombello et al., 2022). As professionals involved in the care of individuals with mental health issues, PSYs and NPSYs help people by, among other things, actively listening to them with empathy and compassion. These tasks can be highly emotionally demanding. According to the Association québécoise des neuropsychologues (2023), neuropsychologists primarily focus on the assessment of, and intervention for, individuals encountering neurological or developmental challenges, be they acquired or degenerative. Consequently, neuropsychology reflects a discipline that fuses psychological insights with the principles of neurosciences. This observation is most relevant since, according to several models of burnout, emotional fatigue is an important risk factor for burnout (Figley, 1995; Freudenberger, 1974; Kristensen et al., 2005).

Recently, the workload of healthcare professionals has been severely burdened by the COVID-19 pandemic and has led to increased psychological distress among PSYs and NPSYs (Marra et al., 2023; Trombello et al., 2022). A systematic review of forty studies revealed that, on average, more than 54% of PSYs experienced moderate to high levels of burnout symptoms (Simionato & Simpson, 2018). Similarly, a recent study revealed high levels of burnout symptoms in more than half of NPSYs (Marra et al., 2023).

### **What is burnout?**

Burnout was first described in 1974 by Freudenberger. He defined it as a state of physical and mental fatigue caused by one's work life. In 2019, the World Health Organization defined burnout as: "[...] a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed."

Among instruments designed to measure burnout, the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1986) is still widely used in research. It identifies three dimensions of burnout (Leiter & Maslach, 1988): 1) emotional exhaustion (feeling overloaded at work), 2) depersonalization (difficulties in feeling emotions towards colleagues/clients), and 3) a reduced sense of personal accomplishment (feeling inefficient at work). Among PSYs, emotional exhaustion is the most common cause of burnout (Rupert et al., 2009).

Another frequently used instrument is the Copenhagen Burnout Inventory (CBI; Kristensen et al., 2005), developed to address limitations and criticisms of the MBI, which primarily applies to human service occupations. The CBI defines three types of burnout: 1) personal burnout (individual's overall fatigue and exhaustion), 2) work-related burnout (fatigue and exhaustion related to one's job), and 3) client-related burnout (fatigue and exhaustion related to clients or co-workers; Kristensen et al., 2005).

In 1995, Figley defined compassion fatigue and established that it could lead to burnout. Compassion is the act of recognizing the suffering of another. Overexposure to the suffering of others can lead to compassion fatigue and decrease one's interest in others and one's ability to offer them support (Figley, 2002). According to well cited research (Figley, 1995; Frederick, 1987), emotional exhaustion and compassion fatigue are more prevalent among healthcare professionals than the general population.

### **Protective Factor for Burnout – Job Satisfaction?**

From a different perspective, it is legitimate to inquire whether PSYs and NPSYs who are more satisfied with their careers also report less burnout. According to Senter et al. (2010), job satisfaction is a subjective evaluation of the level of satisfaction with a specific occupation or job; it represents the difference between what is expected and what is experienced in the workplace. Job satisfaction is influenced by several factors such as personality, work environment and workload (Edwards et al., 2000). Also, according to self-determination theory (SDT; Ryan & Deci, 2000), a broad meta-theory of personality and human motivation, the satisfaction of three basic psychological needs (autonomy, competence and relatedness) is crucial for human beings to flourish in their environments and to develop optimal self-determined types of motivation. Psychological need satisfaction therefore plays an important role in job satisfaction and well-being. For example, a study with psychotherapists in a mental health center found that team support (a construct similar to relatedness) had the greatest positive effect on job satisfaction (Fleury et al., 2017). Some other studies revealed that job satisfaction is negatively correlated with burnout (Ofei-Dodoo et al., 2017; Ross et al., 2009). Interestingly, despite the issues raised above related to burnout, 90% of school psychologists reported being satisfied or very satisfied with their work. Moreover, the researchers observed a slight increase in the

participants' job satisfaction between 1982 and 2004 (Worrell et al., 2004). In sum, while job satisfaction appears to protect individuals from burnout, it remains unclear whether this is true for PSYs and NPSYs.

Although several studies have aimed to identify the determinants of burnout among healthcare professionals (Alexandrova-Karamanova et al. 2016; Kumary & Baker, 2008; Rupert et al., 2009), few have focused exclusively on PSYs and NPSYs. This scoping review therefore aims to better understand the determinants of burnout among these populations. It also aims to identify which factors contribute to PSYs and NPSYs adaptation and thriving at work despite the challenges these professions bring.

## **Methodology**

### **Design**

The scoping review method developed in 2005 by Arksey and O'Malley and updated by Levac et al. (2010) was chosen for this article. As Munn et al. described in their 2018 article, a scoping review "aims to provide an overview or map of the evidence" rather than answer a specific clinical question. The number of articles found in an exploratory phase of this study confirmed that a scoping review was the best type of article to provide evidence on this topic. The research team also relied on the Joanna Briggs Institute's methodological guides for scoping reviews (Peters et al., 2015, 2020). The PRISMA Extension for Scoping Reviews Checklist (Tricco et al., 2018) was also used as a guide for this review.

### **Eligibility Criteria**

All types of scientific studies published and indexed in the databases had the potential to be included in our corpus of articles to be analyzed. As it was more appropriate to include recent

data to reflect the current reality, documents from the last ten years (2012-2022) were eligible to be included. Articles written in English and in French were considered.

### **Information Sources and Search Strategy**

Two main databases were searched: PubMed and PsycINFO. An expert health librarian conducted extensive literature searches up to June 2022, the last searches having been conducted June 1<sup>st</sup>, 2022. The search strategies were adapted to each database (use of thesauri) and tended towards exhaustiveness by including several synonyms without adding irrelevant articles to the results' list (see [Figure 1](#)). Other research methods were used to increase the number of articles of interest such as reading the reference lists of articles and searching for documents citing those initially found by the search queries. In addition to these tools, the team members (a doctor-level professor, a master-level student, and a doctorate-level student) underwent extensive training given by the expert health librarian. These multi-hour training sessions (approximately 35 hours) focused on how to conduct a scoping review, how to use the Rayyan.ai software and how to write a scoping review for a scientific journal.

### **Document Selection**

The selection of documents was done by determining precise inclusion and exclusion criteria. Documents had to be scientific studies with available methodological data. Studies that included experimental tools were excluded. Study participants had to be psychologists and/or neuropsychologists and from the western culture (North America, Europe, Australia) for more uniformity in the education received by these professionals. Studies in which it was not possible to validate these criteria were excluded. The basic eligibility criteria mentioned earlier were applied to the selection of documents.

A pre-screening was done by a researcher when the research team found many irrelevant articles in the results despite an adequate search query. Withdrawals were made on a population basis (where participants were patients), or inappropriate subjects (no link to work or organization). During the first screening (title/abstract), two researchers independently did the review. One of those researchers also did the second screening (full-text) with a different colleague. All conflicts were resolved with the input of a third researcher. The team identified a total of 232 articles for the first screening. While 47 articles made it to a second screening, 27 of them were retained for final analysis. The PRISMA diagram details these steps (see [Figure 2](#)).

### **Data Charting Process and Data Items**

The data of the 27 studies were extracted by two of the researchers. The extracted data was recorded in Table 1 and composed of the following items: Author, year, country of the sample, study design, sample size/participants, variables of interest, and aims.

## **Results**

Results suggest that there is an acceleration in the scientific publications related to the subject of this research, starting in 2017 (i.e. burnout and factors that contribute to a thriving career for PSYs and NPSYs; see Table 1). Indeed, 70% of the articles included in the scoping review were published between 2017 and 2022, suggesting that burnout, job satisfaction and well-being are current concerns in the field of psychology. Results reveal that almost half (48%) of all the articles retained in this scoping review contained the term "burnout" while 44% contained the term "job satisfaction" or "career satisfaction".

### **Burnout—Prevalence and Determinants**

Burnout is most often defined according to the Maslach and Jackson's (1986) MBI model and 64% of the articles included in this scoping review used the MBI to measure burnout<sup>1</sup>. It is worth noting however that Di Benedetto and Swadling (2012) as well as McCade et al. (2021) used the CBI to measure physical and psychological exhaustion.

Research reveals moderate to elevated levels of burnout among PSYs and NPSYs (Berjot et al., 2017; Di Benedetto & Swadling, 2014; McCade et al., 2021; McCormack et al., 2018). For example, in Di Benedetto and Swadling's study with 167 Australian PSYs, 35% experienced personal burnout, 13% client-related burnout, and 20% work-related burnout. McCade et al. found similar results among PSYs and NPSYs who reported experiencing personal burnout (52%), client-related burnout (13%), and general burnout (28%). The instruments used to measure burnout and its prevalence are shown in Table 2. Several studies have explored the correlates of general burnout and its three components according to the MBI model (Maslach and Jackson's, 1986), among PSYs and NPSYs. Their results are presented in Table 3.

The dimension of burnout that affects PSYs the most is emotional exhaustion (Roncalli & Byrne, 2016). According to McCormack et al.'s (2018) systematic review, PSYs have the highest rate of emotional exhaustion among all healthcare workers. Schilling et al.'s (2021) study found that school PSYs reported a moderate level of emotional exhaustion. PSYs also report experiencing depersonalization, but scores on this dimension of burnout are generally low (Schilling et al., 2021). Depersonalization has been shown to be associated with negative and anxiety-provoking client behaviors, which represent risk factors for this dimension of burnout (McCormack et al., 2018).

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<sup>1</sup> Other models and definitions of burnout were reported, namely Allwood et al. (2022) who define burnout as exhaustion and disengagement, Di Benedetto and Swadling (2014) who refer to it as compassion fatigue, and Rupert, Tuminello, et al. (2012) as well as Rupert, Miller, et al. (2012) who do not present a model but operationalize it as PSYs' burnout.



**Table 2**  
*Burnout measurement tools and prevalences*

<b>Studies with burnout concept</b>	<b>Instruments</b>	<b>Sample size</b>	<b>Prevalence</b>
Allwood et al., 2022	Shirom-Melamed Burnout Questionnaire (SMBQ) ( $\alpha = .96$ ), and Oldenburg Burnout Inventory (OLBI)( $\alpha = .80$ )	791 PSY's	SMBQ : 21.6% severe burnout, OLBI : ND
Berjot et al., 2017	MBI-HSS (Human Service Survey), French version (EE, $\alpha = 0.90$ ; PA, $\alpha = 0.71$ ; DP, $\alpha = 0.79$ ).	664 PSY's	High risk of burnout (EE and DP high, PA Low): 22.9%
Brown & Sobel, 2021	MBI (definition of burnout)	58 published studies	NA
Di Benedetto & Swadling, 2014	CBI (PB, $\alpha = 0.87$ ; WB, $\alpha = 0.87$ ; CB, $\alpha = 0.85$ )	167 PSY's	High level on OA=14.4%; PB=35.3%; WB=20.4%; CB=12.6%
Dorociak, Rupert, & Zhaniser, 2017	MBI-HSS (Human Service Survey), english version. EE, $\alpha = 0.89$ ; PA, $\alpha = 0.72$ ; DP, $\alpha = 0.70$ .	333 PSY's sample 1 277 PSY's sample 2	EE for Sample 1, X= moderate symptoms; EE for Sample 2, X=High level symptoms
McCade et al., 2021	CBI (OA $\alpha = 0.92$ )	248 PSY's	High level on OA=27.8%; PB=51.6%; WB=42.3%; CB=13.3%
McCormack et al., 2018	MBI, MBI-HSS, MBI-GS, PBI-R, CBI, OLBI and 2 studies with qualitative methods	PSY's (Systematic Review, 29 articles)	MBI EE highest scores on 34.5% of the papers
Rupert & Dorociak, 2019	MBI-HSS (Human Service Survey), english version. EE, $\alpha = 0.88$ ; PA, $\alpha = 0.73$ ; DP, $\alpha = 0.71$ .	422 PSY's	NA

Studies with burnout concept	Instruments	Sample size	Prevalence
Rupert, Miller, et al., 2012	PBI-R (Rupert, Morgan, Bryant, & Hunley, 2008) Four factors related to burnout: Control ( $\alpha=0.71$ ), Overinvolvement ( $\alpha=0.54$ ), Support ( $\alpha=0.76$ ), and Negative Client Behaviors ( $\alpha= 0.79$ ).	595 PSY's	NA
Rupert, Tuminello, et al., 2012	PBI-R (Rupert, Morgan, Bryant, & Hunley, 2008) ( $\alpha=0.61$ , average of all four factors)	368 doctoral PSYs	NA
Schilling et al., 2021	MBI-HSS (Human Service Survey), english version (EE, $\alpha = 0.90$ ; PA, $\alpha = 0.76$ ; DP, $\alpha = 0.76$ )	100 school PSYs	3 dimensions X=Moderate symptoms
Weaver & Allen, 2017	MBI-HSS (Human Service Survey), english version (EE, $\alpha = 0.92$ ; PA, $\alpha = 0.89$ ; DP, $\alpha = 0.70$ )	192 school PSYs	NA

*Note.* MBI dimensions: EE= emotional exhaustion dimension; DP=depersonalization; PA=reduced personal accomplishment.

CBI dimensions: OA=overall burnout; PB=personal burnout; WB=Work-related burnout; CB=client-related burnout

NA = Not available

**Table 3**

*Summary of the Correlates of General Burnout and its Subtypes among PSYs and NPSYs*

Type of Correlate	General Burnout	Emotional Exhaustion	Depersonalization	Personal Accomplishment
<b>Sociodemographic</b>				
Age	Younger age (Dorociak, Rupert, & Zhaniser, 2017; McCormack et al., 2018)	Younger age (Allwood et al., 2022; McCormack et al., 2018)	Younger age (Dorociak, Rupert, & Zahniser, 2017; Weaver & Allen, 2017)	Older age (Weaver & Allen, 2017)
Experience	Fewer years of experience (.20 to .28; Di Benedetto & Swadling, 2014)			More years of experience (Dorociak, Rupert, & Zahniser, 2017; Schilling et al., 2021)
Gender		Female gender (Allwood et al., 2022; McCormack et al., 2018)	Male gender (Allwood et al., 2022; McCormack et al., 2018)	
<b>Work Environment</b>				
Setting	Working in private hospital (29%) or private company (48%; Berjot et al., 2017)	Not working in a private setting (McCormack et al., 2018)	Not working in a private setting (McCormack et al., 2018)	
Work-related demands	Working in public organisations (30%; Berjot et al., 2017) Greater role ambiguity (Brown & Sobel, 2021) Excessive demands (Brown & Sobel, 2021)	More time spent on administrative tasks (Schilling et al., 2021) High work demands (Allwood et al., 2022)	Less engagement in career development activities (Rupert & Dorociak, 2019)	Less time spent on administrative tasks (McCormack et al., 2018) Less pressure from the administration (McCormack et al., 2018)
Work-related stress		Work-related stress (Rupert & Dorociak, 2019)	Work-related stress (Rupert & Dorociak, 2019)	
Work-related pressure	Greater workload (McCormack et al., 2018) Perception of low personal and professional resources (McCormack et al., 2018)	Greater number of evaluations (Schilling et al., 2021) Personal conflicts (Allwood et al., 2022)	Employer dissatisfaction (Huebner, 1992 in Brown & Sobel, 2021)	Perception of greater personal resources (McCormack et al., 2018)

<b>Type of Correlate</b>	<b>General Burnout</b>	<b>Emotional Exhaustion</b>	<b>Depersonalization</b>	<b>Personal Accomplishment</b>
<b>Personality Traits</b>				
Extraversion	Low extraversion (Brown & Sobel, 2021)	Low extraversion (Mills & Huebner, 1998 in McCormack, 2018)		
Agreeableness	Low agreeableness (Brown & Sobel, 2021)	Low agreeableness (Mills & Huebner, 1998 in McCormack, 2018)		
Positive traits	Low sense of humor (Di Benedetto & Swadling, 2014) Low self-compassion (.49; McCade et al., 2021)	Low conscientiousness (Mills & Huebner, 1998 in McCormack, 2018)		
	Low mindfulness (.50; Di Benedetto & Swadling, 2014)		Low cognitive sensitivity (focus on emotions to overcome challenges; Rupert & Dorociak, 2019)	
Negative traits	Perfectionism (McCormack et al., 2018)			
	Judgment of internal experience (.51; Di Benedetto & Swadling, 2014)	Rumination (.43; Allwood et al., 2022)		
Control	Low perceived control (Di Benedetto & Swadling, 2014)			Greater perception of control (McCormack et al., 2018)
<b>Behavior</b>				
Coping strategies	Substance use (McCormack et al., 2018)	Fewer work-life balance strategies (Rupert & Dorociak, 2019)		
Self-care	Less self-care (Rupert & Dorociak, 2019)	Less self-care (Rupert & Dorociak, 2019)	Less self-care (Rupert & Dorociak, 2019)	
Surface actions	Low physical activity (Di Benedetto & Swadling, 2014)	Surface actions (concealing true emotions; Weaver & Allen, 2017)	Surface actions (Weaver & Allen, 2017)	Fewer surface actions (McCormack et al., 2018)

*Note.* All associations are expressed as positive correlations, unless otherwise stated.

## **Positive Aspects of Work—Career Success, Job Satisfaction, and Life Satisfaction**

As mentioned previously, many recent scientific studies have measured dimensions of PSYs and NPSYs well-being at work, including career success, job satisfaction and life satisfaction. The correlates of these variables are presented in Table 3.

### ***Career Success***

Career success is essentially defined in two ways although different authors use different terminology. For instance, some authors use the terms *objective* and *subjective* career success (Dose & Desrumaux, 2019; Otto et al., 2019; Sobiraj et al., 2016). Some use the terms *extrinsic* and *intrinsic*<sup>2</sup> success (Otto et al., 2017). Objective career success is reflected by one's salary, number of promotions, and position in the hierarchy, while subjective career success is based on the individual's evaluation of their job, including how satisfied they are and to what extent they achieve their goals (Dose & Desrumaux, 2019; Otto et al., 2019; Sobiraj et al., 2016). Interestingly, Sobiraj et al. (2016) add a component of PSY's subjective career success, namely achieving clients' goals.

Career-oriented and highly motivated PSYs report objective success, like a high hierarchical position and a good salary. Yet, it does not guarantee objective success in the long run, since achievement motivation is not longitudinally related to objective success (Otto et al., 2017).

### ***Job Satisfaction***

Most authors referring to career or job satisfaction use this term as a broad umbrella to include satisfaction with one's job, one's salary, and one's and work/life balance (Nelson et al.

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<sup>2</sup> Otto et al.'s (2017) definition of intrinsic success is based on Sobiraj et al.'s (2016) subjective success, while extrinsic success is analogous to the objective success described above.

2021; Sweet et al., 2015), with the exception of Norcross and Rogan (2013), who evaluate this aspect as subjective job evaluation.

According to Brown and Sobel's (2021) study, job satisfaction reflects the individual's positive evaluation of his or her job. Results from this scoping review reveal that, overall, PSYs and NPSYs are generally satisfied with their jobs (Brown & Sobel, 2021 ; Cottrel & Barrett, 2016 ; McCormack et al., 2018 ; Norcross & Rogan, 2013; Norup et al., 2018 ; Roncalli & Byrne, 2016 ; Rupert, Miller, et al., 2012) and score highly on this variable (Nelson et al., 2021 ; Sweet et al., 2015; Wiens et al., 2022).

Employees' perceptions of their jobs can help them adapt to multiple demands or issues related to work (Rupert, Tuminello, et al., 2012), feel more satisfied at work, and attain work-life balance (Nelson et al., 2021; Rupert, Tuminello, et al., 2012; Sweet et al., 2015). Satisfaction with work-life balance varies, however, among NPSYs across regions. For instance, in Canadian provinces, it varies between 68% in Ontario and 83% in Quebec (Nelson et al., 2021). Similarly, in the USA, Connecticut reports the lowest level of satisfaction (18%), and California the highest (83%; Sweet et al.).

Interestingly, female NPSYs report more job satisfaction when they are satisfied with their work-life balance (Nelson et al., 2021). Moreover, women NPSYs report that their job satisfaction is subject to change based on environmental and personal factors (Sweet et al., 2015). Job satisfaction among PSYs who are mothers is particular since it can be positive when a balance between professional and personal aspects is established. Yet, it is not unusual for women to have to change their work environment to achieve job and personal life satisfaction (Wiens et al., 2022).

**Table 3**

*Summary of the Correlates of some Positive Aspects of Work among PSYs and NPSYs*

Type of Correlate	Career Success	Job Satisfaction	Life Satisfaction
<b>Sociodemographic</b>			
Age		Older age (among PSYs; Dorociak, Rupert, Bryant et al., 2017)	
Experience		More years of experience (among PSYs; Brown & Sobel, 2021)	
Gender		Male gender (among NPSYs; Sweet et al., 2015)	
Family		Family support (among PSYs; Rupert, Miller, et al., 2012)	Family support (Rupert, Miller et al., 2012)
<b>Work Environment</b>			
Subjective aspects of work	Greater perceived support with the organization (Dose & Desrumaux, 2019) Greater access to work resources (Sobiraj et al., 2016)		Job satisfaction (Rupert, Miller et al., 2012)
Work settings		Multidisciplinary work (Brown & Sobel, 2021) Teamwork (Roncalli & Byrne, 2016) Working in a private setting Nelson et al., 2021; Sweet et al., 2015)	
<b>Personality traits</b>			
Subjective	Valuation of subjective or intrinsic career success (Sobiraj et al., 2016; Otto et al., 2017; Otto et al., 2019)		
Interaction	Better communication skills (Otto et al., 2019)	Valuation of working with others (Otto et al., 2019)	
Expectations	Lower performance expectations (Otto et al., 2017)	Reasonable performance expectations (Otto et al., 2017)	

Type of correlate	Career Success	Job Satisfaction	Life Satisfaction
<b>Personality Traits</b>			
Extraversion		Extraversion (among PSYs; Brown & Sobel, 2021)	
Agreeableness		Agreeableness (among PSYs; Brown & Sobel, 2021)	
Locus of control		Internal locus of control (Brown & Sobel, 2021)	
Congruence		Perceiving one's job as closely matching their ideal job (Brown & Sobel, 2021)	
<b>Behavior</b>			
Cooperation		Good cooperation skills (Otto et al., 2019)	
Balance			Work-life balance (Doracik, Rupert & Zahniser, 2017)
Self-care			Self-care behaviors (Rupert et al., 2019)

*Note.* All associations are expressed as positive correlations, unless otherwise stated.



## **Discussion**

The results of various studies included in this scoping review indicate that job satisfaction among PSYs and NPSYs is high, but so is burnout. Burnout and job satisfaction therefore do not appear to be two ends of a continuum, but rather two variables that coexist. For PSYs and NPSYs, emotional exhaustion is the most frequently endorsed component of burnout. These health care professionals work with clients suffering from a range of cognitive, behavioral and emotional difficulties which can be very emotionally draining. In fact, there is a perception that PSYs must suppress their authentic emotions at work, resulting in emotional inconsistencies, or surface actions that contribute to emotional exhaustion (Weaver & Allen, 2017). Higher stress levels, despite positive career development among PSYs, lead to emotional exhaustion and withdrawal from their community (i.e. also known as depersonalization; Rupert & Dorociak, 2019). As PSYs tend to have low scores on depersonalization, Sobiraj et al. (2016) propose that it is possible that PSYs priority is their patients' well-being, at the expense of their own. As an example, PSYs prioritize making a positive impact in their clients' lives over objective rewards, increasing their subjective career success at the expense of objective success. In sum, they may be less likely to pay attention to their emotions and personal problems while pursuing these goals. It appears that PSYs and NPSYs do not let their frustrations, disappointments or personal ambitions influence their sense of duty at work. While PSYs and NPYs are dedicated to their clients, it sometimes comes at a cost.

### **Personality and Behavior**

Self-care behaviors appear to be a mediating variable between burnout risk factors and burnout, as well as a key variable for improving job satisfaction. In fact, it is often discussed as a multidimensional and preventive means of countering challenges related to working as a PSY

(Dorociak, Rupert, Bryant et al., 2017). Self-care is defined as a range of self-compassionate behaviors that promote the development and maintenance of well-being at work (Di Benedetto & Swadling, 2014). According to Rupert and Dorociak (2019), self-care is manifested through cognitive sensitivity, professional support, professional development, and balance (daily and in life in general). In fact, work-life balance is a vital dimension of self-care known to moderate burnout and contribute to well-being (Rupert & Dorociak), as it predicts reduced stress and increased life satisfaction.

Self-care, moreover, contributes to a sense of accomplishment among PSYs. It is a demonstrated determinant of personal and professional accomplishment and life satisfaction, while at the same time being a protective factor against perceived stress, emotional exhaustion, and depersonalization (Dorociak, Rupert, Bryant et al., 2017). Specifically, cognitive sensitivity, which means focusing on managing emotions to overcome work-related challenges, enables PSYs to protect themselves from work-related stress by allowing them to maintain positive emotions and prevent the erosion of personal accomplishment in their jobs (Rupert & Dorociak, 2019). Additionally, self-compassion reduces the risk of burnout for PSYs and NPSYs (McCade et al., 2021), as it reduces the use of avoidance coping strategies. It also contributes to reducing the stress associated with perfectionism (McCormack et al. 2018).

The aforementioned elements related to self-care illustrate its beneficial effects on the mental health, well-being, and job and life satisfaction of PSYs and NPSYs (Di Benedetto & Swadling, 2014; McCade et al., 2021; Rupert & Dorociak, 2019). For these professionals, caring for others is an integral part of their work. Although it may seem intuitive that these professionals be as compassionate to themselves as they are to their clients, it is not always so straightforward. Indeed, it seems that implementing self-care behaviors is difficult for many of

them (Dattilio, 2015; Rupert, Tuminello, et al., 2012). For this reason, certain personal characteristics present in these professionals, such as a strong desire to help others, could be a barrier to the practice of self-care-related activities (Dattilio, 2015; McCormack et al., 2018).

According to the results of the present review, PSYs and NPSYs can improve their well-being at work through self-compassion (being kind to yourself), engaging in physical activities, and practicing mindfulness. While many activities can promote the development of mindfulness, such as tai chi, yoga, and qigong (Walsh & Shapiro, 2006), the development of mindfulness is largely studied through mindfulness meditation (Eberth & Sedlmeier, 2012). In addition, mindfulness and self-compassion are also documented as essential practices for PSYs to protect themselves from the suicidal risk associated with their profession (Zuckerman et al., 2022).

The practice of mindfulness increases the level of emotional intelligence and facilitates the development of social skills necessary for PSY or NPSY practice (Miao et al., 2018). An important aspect of emotional intelligence is self-awareness (Goleman, 1997). According to Johari window theory (Luft & Ingham, 1955), a proven self-development practice, this promotes the development of a person's authenticity and also improves the quality of personal relationships. Given that a significant number of variables related to teamwork, such as multidisciplinary, are positively correlated with job satisfaction, and considering that workplace conflicts are negatively correlated with burnout, fostering positive relationships at work can contribute to a healthier work environment.

### **Factors Related to the Environment**

The work environment plays a significant role in the well-being and mental health of PSYs and NPSYs. For example, being able to take breaks between clients decreases stress and lowers the risk of burnout (Rupert & Dorociak, 2019). Moreover, time pressure at work has been

shown to lead to disengagement (Allwood et al., 2022), as does employer dissatisfaction, which generates stress for PSYs (Brown & Sobel, 2021), decreasing job satisfaction, and increasing resignation rates (Huebner, 1992 as cited in Brown & Sobel, 2021). Administrative tasks and pressure from the administration also reduce the sense of personal accomplishment, regardless of client load, which would increase this feeling (McCormack et al., 2018).

Workers in private practice (self-employed) have lower rates of burnout and report greater satisfaction at work (McCormack et al., 2018). These professionals also have greater autonomy at work since they can manage their schedule, their choice of clients and many aspects of their work environment. As these parameters may change according to life events (McEwans et al., 2019), it is important that these professionals remain in control of their work (Rupert, Tuminello, et al., 2012). PSYs' perception of control is associated with their sense of personal accomplishment, since it allows professionals to perceive their personal resources as sufficient to accomplish their tasks (McCormack et al., 2018). Also, feeling in control of one's work and receiving support from one's family has been shown to decrease conflict in the work-life dynamic, which increases life satisfaction (Rupert, Miller, et al., 2012).

As mentioned in the critique by Durocher et al. (2012), PSYs working within public institutions face constraints in following the organization's framework, while also needing to maintain a space to meet their client's needs and uphold the rules and regulations of their profession (e.g., confidentiality). Balancing conflicting demands can be challenging as it increases the personal conflicts experienced between professionals' values and work reality, and it may raise the likelihood of experiencing burnout (Allwood et al., 2022).

Feeling a lack of support from management is associated also with increased stress and symptoms of burnout (Johnson et al., 2018). As stated by Dose and Desrumaux (2019)

perceiving support from one's work environment can contribute to career success, but it seems to be lacking for PSYs and NPSYs working in public institutions. This situation, particularly in the healthcare sector, has already been demonstrated to have an impact on the withdrawal of professionals from their work environment (Mosadeghrad et al., 2011). Therefore, providing both material and human resources to PSYs and NPSYs could make a difference at a time when these professionals are facing shortages in public settings (Assemblée nationale du Québec, 2023).

It is important to acknowledge the impact the healthcare system can have on the current shortage of PSYs and NPSYs and take action to improve conditions by implementing measures that enhance mental health and job satisfaction. Workers in institutional or governmental work places, where the work environment is more bureaucratic, often do not have as much control over their work as those in private practice. Cramond et al.'s (2020) study indicates that administrative tasks hinder compassion and resilience. The administrative burden, according to Dorociak, Rupert, & Zahniser (2017), is particularly damaging at the beginning of the profession, as it is overwhelming for young professionals, a time that is already challenging and poses a risk for burnout symptoms (Di Benedetto & Swadling, 2014). In addition, workload related to administrative or bureaucratic tasks tends to decrease feelings of personal accomplishment (McCormack et al., 2018).

Several actions can be undertaken to improve the situation of PSYs and NPSYs working in government institutions to make these jobs more attractive. As changes need to be tailored to internal issues and may vary depending on the institutions, individuals, and countries, it is important to have an open discussion about the changes to be implemented. Some authors cited in the present scoping review have identified potential areas for change that could lead to higher

employee job satisfaction, such as addressing issues related to internal politics, bureaucratic burdens, lack of recognition (Wiens et al., 2022), and salary satisfaction (Sweet et al., 2015). As stated earlier, control over their work is important for PSYs, and it may be achieved through direct payment, reducing administrative tasks and being able to choose between working in a single or shared office. Another opportunity for employers to promote job satisfaction is through constructive feedback. Task feedback would lead to a greater sense of appreciation, self-acceptance, personal effectiveness, commitment, and perceived development within the job (Sobiraj et al., 2016). Finally, strategies to ensure a supervisor takes into consideration the emotional needs of the supervisee, as well as developing mindfulness techniques to stay in the moment and to detach from clients' problems after sessions (Cramond et al., 2020), are all actions that can make a difference at work.

### **Study Limitations**

This study has the following limitations that are worth noting. Although different instruments used for measuring burnout have been available for some time, it is difficult to establish which instrument is the best. In this review, we have considered current measures to be reliable, even if they are not entirely consistent with each other.

Also, the professions of PSYs and NPSYs are challenging and some of these professionals decide to withdraw from their careers for personal reasons, which can be linked to stress or burnout (Rupert & Dorociak, 2018). It is important to specify that the analyzed data came from articles focused on practising PSY's, and there can be missing data regarding former PSYs who left the profession or trainees. While these latter individuals could have offered valuable insights to address burnout prevention from the training phase, the topics they bring up are distinct from those in practice and may warrant independent exploration in the future.

Finally, this protocol could have been pre-registered to be more transparent and to receive feedback from other scientists.

### **Usefulness of the Study**

This review raises key elements related to burnout and job satisfaction of PSYs and NPSYs. Elements such as psychological need support are key elements in SDT. Indeed, a manager who provides the necessary tools and support can foster a sense of autonomy and competence, which are key elements of SDT. It is important to identify factors in the work environment that managers should focus on in order to improve the satisfaction and mental health of PSYs and NPSYs in institutions or companies. Concerning more personal aspects, the development of self-care skills can greatly help these professionals. In future studies, it would be interesting to examine the different factors influencing the risk and protective factors of professional distress between PSYs and NPSYs. In addition, a systematic review focused specifically on psychology and neuropsychology students would help us understand how this population manages these risk and protection factors.

### **Conclusion**

The results of this study show that both individual factors and the work environment play a crucial role in the mental health of PSYs and NPSYs. Research shows that certain actions, particularly self-care practices, can reduce the risk of burnout as well as increase job satisfaction and well-being. In order to foster an institutional culture that promotes positive mental health, certain actions are necessary. For instance, managers and institutional leaders should consider the risk of emotional exhaustion among PSYs and NPSYs by offering autonomy-supportive strategies such as a more flexible work environment (working hours, client load, etc.), especially among the less experienced. Strategies can be used to increase self-care at work, such as asking

employers to prioritize the emotional and physical well-being of employees, as well as encouraging professionals to develop mindfulness techniques that will facilitate detachment from encounters with clients after sessions (Cramond et al., 2020).

From a positive psychology perspective, the research included in the present scoping review suggests that PSYs and NPYs hold many keys to increase their well-being. Many of these represent the best practices for well-being in institutions, organizations, and educational programs. Since it is possible to work upstream, universities could set up self-care practice workshops and promote life balance by developing courses and programs that are less focused on academic performance and more on the development of personal skills and self-knowledge. By creating a less pressurized environment, barriers to practicing self-care might begin to fall more easily.



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### Figure 1

#### PubMed search strategy

(Characteris\* OR factor\* OR Profile) AND ("Professional satisfaction" OR "Career satisfaction" OR "Professional well-being" OR "Professional adaptation" OR "Professional appreciation" OR "Work satisfaction" OR "Job satisfaction" OR "Job Satisfaction"[Mesh]) AND (Psychologist\* OR Neuropsychologist\* OR Psychoanalyst\* OR Psychotherapist\* OR "Psychotherapists"[Mesh])

2012-2022 – French + English

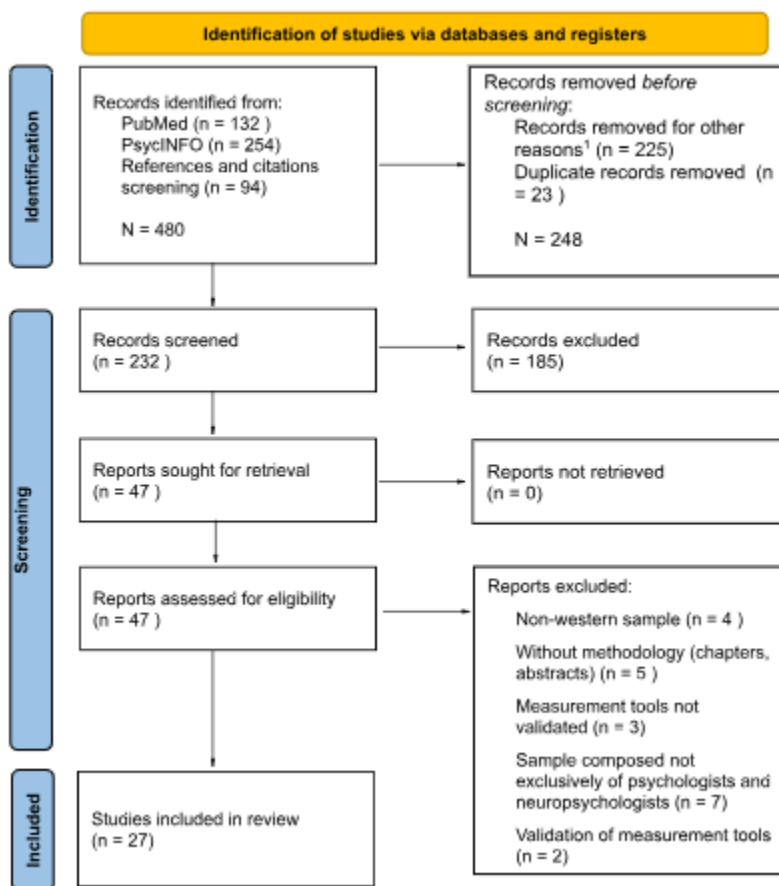
#### PsycINFO search strategy

(Characteris\* OR factor\* OR Profile) AND ("Professional satisfaction" OR "Career satisfaction" OR "Professional well-being" OR "Professional adaptation" OR "Professional appreciation" OR "Work satisfaction" OR "Job satisfaction" OR Index Terms: {Job Satisfaction} OR {Employee Retention} OR {Employee Well-Being} OR {Quality of Work Life} OR {Occupational Success} OR {Occupational Success Prediction} ) AND (Psychologist\* OR Neuropsychologist\* OR Psychoanalyst\* OR Psychotherapist\* OR Therapist\* OR "Psychotherapists"[Mesh])

2012-2022 – French + English

Figure 2

PRISMA 2020 flow diagram

<sup>1</sup> Off topic

From:

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Systematic Reviews*, 10(1), 89. <https://doi.org/10.1186/s13643-021-01626-4>

For more information, visit: <http://www.prisma-statement.org/>

**Table 1**

Results of scoping review.

<b>Author/Year</b>	<b>Country sample</b>	<b>Study Design</b>	<b>Sample Size</b>	<b>Variables of interest</b>	<b>Aims</b>
Allwood et al., 2022	Switzerland	Non-randomized controlled trial	828 PSYs	Personality Gender Job demands Affective job rumination Personal-to-work conflict Burnout (exhaustion, disengagement)	Investigate the effects of gender, personality, job demands, affective work rumination, and personal-to-work conflict on burnout among clinical public-health psychologists in Sweden.
Berjot et al., 2017	France	Non-randomized controlled trial	664 PSYs	Burnout (emotional exhaustion, depersonalization, personal accomplishment)	Propose a new interpretation of the factors constituting the MBI, after having used it in a specific group and to illustrate the problems of the models already in use.
Brown & Sobel, 2021	International	Systematic review	58 published research and dissertations on school PSYs	Job attitudes including job satisfaction, burnout (emotional exhaustion, depersonalization, personal accomplishment), actual and ideal roles Personality and individual characteristics	Obtain an overview of research on school psychologists' job attitudes.
Cottrell & Barrett, 2016	United States	Cross-sectional study	171 school PSYs	Job satisfaction Specific learning disabilities identification	Determine whether different identification methods are related to job satisfaction and assess whether alignment between the method used and desired increase job satisfaction.
Cramond et al., 2020	United Kingdom	Qualitative interviews	124 clinical PSYs working in palliative care	Compassion fatigue Commitment Relationship with patient	Understand how working in palliative care has a clinical psychologist can impact their work.
Di Benedetto & Swadling, 2014	Australia	Non-randomized controlled trial	167 PSYs	Burnout (compassion fatigue) Career-sustaining behaviors (self-care behaviors, self-compassion, self-awareness) Mindfulness	Investigate the relationship between burnout among australian PSYs, work environment, years of experience, mindfulness, and career-sustaining behaviors.
Dorociak, Rupert, Bryant et al., 2017	United States	Factor analysis	1 <sup>st</sup> : 422 PSYs 2 <sup>nd</sup> : 374 PSYs	Self-care; Burnout	Develop a measure of self-care for PSYs
Dorociak, Rupert, & Zahniser, 2017	United States	Cross-sectional study	1 <sup>st</sup> : 333 PSYs 2 <sup>nd</sup> : 277 PSYs	Self-care; Burnout; Well-being (job satisfaction); Career stages; life satisfaction	Investigate the functioning and the issues of three stage career in psychology

Author/Year	Country sample	Study Design	Sample Size	Variables of interest	Aims
Dose & Desrumaux, 2019	France	Cross-sectional study	379 PSYs	Psychological need satisfaction (autonomy, competence, relatedness) Perceived organizational support Objective and subjective career success	Determine whether the three psychological needs in self-determination theory mediate between perceived organizational support and the two dimensions of career success.
McCade et al., 2021	Australia	Cross-sectional study	248 PSYs	Burnout; Depression; Self-compassion; Self-care	Determine if there is a relationship between depression, burnout and self-compassion in the field of psychology.
McCormack et al., 2018	International	Systematic review	29 articles	Burnout (emotional exhaustion, depersonalization, personal accomplishment)	Synthesize research on burnout among psychologists.
McEwan et al., 2019	United Kingdom	Qualitative study	2 <sup>nd</sup> : 5 sport PSYs with more than 15 years of experience	Process of individuation Professional development	Explore professional development and individuation over the career and life events
Nelson et al., 2021	Canada	Non-randomized controlled trial	111 NPSYs	Income; Career satisfaction; Work setting; Professional identity	Describe clinical neuropsychology in Canada
Norcross & Rogan, 2013	United States	Randomized controlled trial	401 PSYs	Professional activities; Publications and presentation; Employment settings; Personal therapy; Training satisfaction; Career satisfaction	Provide a portrait of contemporary psychology and compare practice with past years
Norup et al., 2018	Norway, Denmark, Sweden, Finland	Non-randomized controlled trial	890 PSYs	Clinical training; Work factors and salary; Clinical activities; Job satisfaction	Create a portrait of neuropsychology in the Nordic countries of Europe
Otto et al., 2017	Germany	Cross-sectional study	1 <sup>st</sup> : 119 PSYs 2 <sup>nd</sup> : 63 PSYs	Career ambition; Extrinsic (salary, position) and intrinsic success (job satisfaction, goal attainment)	Research about the role of career ambition in the PSY's success
Otto et al., 2019	Germany	Mixed method (non-randomized controlled trial and qualitative)	1 <sup>st</sup> : 164 PSYs 2 <sup>nd</sup> : 20 PSYs	Social skills Objective and subjective career success (job satisfaction, goal attainment)	Define the role of competencies in developing the career success of psychologists
Roncalli & Byrne, 2016	Ireland	Cross-sectional study	77 PSYs working in mental health teams	Job satisfaction; Burnout (emotional exhaustion, depersonalization, personal accomplishment); Interpersonal relationship	Explore the relationship between job satisfaction and burnout among mental health teams' working PSYs
Rupert & Dorociak, 2019	United States	Cross-sectional study	422 PSYs	Self-care; Burnout (emotional exhaustion, depersonalization, personal accomplishment); Life satisfaction; Perceived stress	Investigate how self-care mechanisms can reduce the risk of burnout and increase life satisfaction in PSYs

<b>Author/Year</b>	<b>Country sample</b>	<b>Study Design</b>	<b>Sample Size</b>	<b>Variables of interest</b>	<b>Aims</b>
Rupert, Tuminello, et al., 2012	United States	Cross-sectional study	368 doctoral PSYs	Work-family and family-work conflict ; Support from family; Burnout; Control at work; Work satisfaction; Family satisfaction; Life satisfaction	Search how the model work-family resource, work-family conflict and life satisfaction reflect the situation of PSYs
Rupert, Miller, et al., 2012	United States	Cross-sectional study	595 PSYs	Career satisfaction; Burnout; Career-Sustaining Behavior	Establish a portrait of the job satisfaction of PSYs using their individual and professional characteristics
Schilling et al., 2021	United States	Non-randomized controlled trial	100 school PSYs	Burnout (emotional exhaustion, depersonalization, personal accomplishment)	Examine individual and school factors that affect the feeling of burnout
Sobiraj et al., 2016	Germany	1 <sup>st</sup> : qualitative study 2 <sup>nd</sup> and 3 <sup>rd</sup> : Non-randomized controlled trial	1 <sup>st</sup> : 20 PSYs 2 <sup>nd</sup> : 154 PSYs 3 <sup>rd</sup> : 120 PSYs	Job resources Subjective (job satisfaction) and objective career success	Obtain a definition of career success among PSYs
Sweet et al., 2015	United States	Non-randomized controlled trial	1777 NPSYs	Income; Professional activities; Career satisfaction; Practice environment; Professional identity; Work settings Approach toward test selection; Forensic practice	Provide an actual portrait of American clinical NPSYs
Weaver & Allen, 2017	United States	Non-randomized controlled trial	192 school PSYs	Burnout (emotional exhaustion, depersonalization, personal accomplishment) Display rules; Surface acting; Job satisfaction Positive and negative affectivity	Test a model of display rule and surface acting among school PSYs
Wiens et al., 2022	Canada	Non-randomized controlled trial	89 Canadian mothers working as PSYs	Job satisfaction (one aspect of well-being) Work-family conflict as opposed to work-family balance; Social supports	Understand the difficulty that mother face with job satisfaction and work-family balance.
Zuckerman et al., 2022	United States	Cross-sectional study	172 PSYs	Work trauma factors; Mental health Suicidal risk; Resilienc; Meaning of life Compassion satisfaction	Link work trauma factors, and mental health with suicidal risk, resilience, meaning of life, and compassion satisfaction.