How fear affects employees' performance: A process model

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ABSTRACT

The effect of emotions on employees' attitudes, motivation, and workplace behaviors is an important and central topic in organizational behavior research. Therefore, the main purpose of this study is to develop and empirically test a model that explains how fear affects employees' performance. The model was tested on a sample of 177 nurses working in different Jordanian hospitals. A questionnaire was developed to measure the main constructs of this study. The data was analyzed in SPSS using simple regression to test the main direct hypotheses. The model hypothesizes that fear has a positive effect on two psychological states: emotional exhaustion and perceived stress. Moreover, it hypothesizes that these two states will affect employees' career choice regret, which, in turn, negatively affects employees' performance. The results provided statistical support for all the proposed hypotheses. We concluded that excessive fear provokes emotional exhaustion and stress in frontline employees and that these two psychological states contribute to the development of career choice regret, which eventually affects employees' performance. The findings of this study may enable managers to gain deeper insight into and a better understanding of the process by which fear influences employee performance. Finally, limitations and directions for future research are discussed.

Contribution/Originality: This study contributes to the organizational behavior literature by investigating the effect of fear on employees' performance, which fills a gap in the literature. Moreover, this is one of very few – if any – studies in the fields of management and organizational behavior to investigate the role of regret on employees' behavior.

1. INTRODUCTION

The effect of emotions on employees' attitudes, motivation, and workplace behaviors is an important and central topic in organizational behavior research (Brown, 2003; Klinnert, Campos, Sorce, Emde, & Svejda, 1983). Emotions are a response to external stimuli (Brown, 2003). One recent external event that affected millions worldwide was COVID-19. This pandemic aroused fear among people around the world. Fear of COVID-19 has caught the attention of researchers; however, the research on this topic has either been descriptive or has examined a bilateral relationship by examining the effect of COVID-19 (as an independent variable) on a particular dependent variable, such as mental or psychological health (Broche-Pérez, Fernández-Fleites, Jiménez-Puig, Fernández-Castillo, & Rodríguez-Martin, 2020; Gritsenko et al., 2021; Khattak, Saeed, Rehman, & Fayaz, 2021). In addition to its health and psychological consequences, the fear of COVID-19 can have behavioral ramifications. Fear affects the decisions we make and the behaviors we exhibit. Thus, fear is a key factor in explaining and understanding

employees' behavior in the workplace. However, Tamir and Bigman (2018) argued that the way emotions shape behavior is not fully understood. Lord and Kanfer (2002) postulated that emotions influence behavior either directly or indirectly (through their effect on other variables). Thus, there is a need for research models that provide insight into the process by which fear influences behavioral outcomes that go beyond bilateral relationships. We developed and empirically tested a model that explains how fear affects an important, though neglected, outcome of employee performance. It has been argued that "The emotion fear is still very underexposed in literature" (Hutjens, 2014). Thus, this study enriches the existing literature and contributes to a better understanding of the mechanisms through which fear affects employee performance.

No sooner did the world start to recover from the 2008 financial crisis than another, worse, global crisis appeared: the COVID-19 pandemic. COVID-19 has a detrimental effect on people's health and lives. Thus, COVID-19 engendered fear among people worldwide. The pandemic has generated a wide stream of research investigating the psychological and health-related consequences of COVID-19. However, its devastating effects are not limited to health and social outcomes but extend to economic ramifications. It affected not only people's health but also the health of the economy, both at the macro and micro levels. While the effect might not be consistent across countries, COVID-19 profoundly affected the infected countries' economies. Due to the non-pharmaceutical interventions used to control the spread of the virus (such as lockdowns and curfews), almost all countries plunged into either an economic slowdown or a deep recession (Brodeur, Gray, Islam, & Bhuiyan, 2021). In response to economic pressures on their businesses, many employers cut their employees' salaries; other employees were laid off or furloughed, and yet others permanently lost their jobs. Many employees worked in a threatening environment in which there was a high possibility of infection. The disturbances and uncertainty employees witnessed during the crisis of the COVID-19 pandemic have resulted in severe negative emotional and psychological consequences. This may consequently have increased the likelihood of poor performance. However, there is a paucity of research exploring the effect of negative emotions (e.g., fear) on employees' workplace performance. Although the effect of the fear of COVID-19 on employees' feelings and mental and psychological well-being has been widely investigated, less attention has been given to the effect of COVID-19 on employees' performance.

This study, therefore, developed and empirically tested a model to investigate the mechanisms underlying the effect of COVID-19 fear on employee performance. More specifically, we tested the effect of COVID-19 fear on two psychological states: emotional exhaustion and perceived stress. Moreover, we hypothesized that these two states would affect employees' career choice regret, which, in turn, would negatively affect employees' performance.

2. THEORETICAL BACKGROUND AND HYPOTHESES

Although all professional groups are susceptible to COVID-19 infection, some groups are more vulnerable than others. Nurses are at a higher risk of contracting the disease. Healthcare employees work in a hazardous environment as they are in direct, close, and extended contact with persons who are infected or suspected to be infected with COVID-19. This makes healthcare workers very vulnerable to COVID-19, and they are classified as the group at the highest risk of infection with this disease (Kalantary & Khadem, 2020; Lancet, 2020; Ollarves-Carrero, Rodriguez-Morales, Bonilla-Aldana, & Rodriguez-Morales, 2020).

Several factors provoke fear of COVID-19 among nurses, which consequently leads to high levels of stress and emotional exhaustion. Despite all precautions, COVID-19 has resulted in thousands of confirmed cases among healthcare staff and taken thousands of lives of physicians and nurses. Frontline healthcare workers' probability of infection is three times that of the general public (Karlsson & Fraenkel, 2020; McCauley & Hayes, 2020). Published data has indicated that healthcare workers are severely affected by the pandemic. A recent study conducted by Bandyopadhyay et al. (2020) reported that nurses are the healthcare group at the highest risk of COVID-19 infection. More recently, a report released by the *International Council of Nurses* in 2021 showed that by the end of 2020, the number of deaths due to COVID-19 among nurses in 59 countries was estimated at 2,262. *Lost on the*

Frontline, a joint project of *The Guardian* and *Kaiser Health News,* showed that as of April 2021, the number of US healthcare workers deaths due to COVID-19 stands at 3607, 32% of them were nurses.

Working in such a distressing environment will increase healthcare workers' vulnerability to infection and amplify their fear of COVID-19. Moreover, external factors may aggravate the feeling of fear. News circulating through the media about new variants of COVID-19, successive waves of COVID-19 outbreaks and lockdowns, and an overabundance of unverified information spread on social media will make employees more uncertain about how long this pandemic will last and about its future impact on their health (Alowibdi, Alshdadi, Daud, Dessouky, & Alhazmi, 2021; Baloglu, 2021; Chao, Xue, Liu, Yang, & Hall, 2020; Dort et al., 2020; Kachulak, 2020; Soroya, Farooq, Mahmood, Isoaho, & Zara, 2021; Zandifar & Badrfam, 2020). Such uncertain situation is likely to exacerbate a sense of fear and insecurity among employees.

Fear of COVID-19 takes a huge emotional toll on nurses. The end of the pandemic is not yet in sight. The oscillation in the number of infections and deaths will induce additional emotional stress on nurses. These fluctuations will negatively affect the psychological and emotional health of already fearful people, downward trends will give workers hope that the pandemic is receding. While they hope that this trend continues, the next day's figure might display an upward jump. This will put workers in a state of uncertainty about what lies ahead. New variants of the virus have been identified in many countries and continue to spread; these new variants are more transmissible than preexisting ones. This will increase the fear of a new wave of this contagious disease that will increase the number of COVID-19 patient hospitalizations. Being in such an uncertain and disastrous situation makes nurses feel stressed and emotionally exhausted. When faced with excessive work demands, employees may experience emotional exhaustion and stress. The conservation of resources (COR) model states that "people strive to retain, protect, and build resources and that what is threatening to them is the potential or actual loss of these valued resources" (Hobfoll, 1989). This model further suggests that "ongoing work demands consistently deplete resources at a faster rate than resources can be replenished" (Freedy & Hobfoll, 1994). Physical health and safety are resources people value and strive to protect. Continual exposure to the potential threat of loss or actual loss of these resources will result in a state that is high in demands and low in resources, which will lead to emotional exhaustion and arouse stress.

The extant literature has confirmed the immense effect of fear on the emotional and psychological well-being of nurses. A study conducted by Chen and Eyoun (2021) found a significant positive relationship between frontline restaurant employees' fear of COVID-19 and emotional exhaustion. Another study by Satici, Gocet-Tekin, Deniz, and Satici (2021) indicated that a higher level of fear was a significant predictor of stress. Based on the above analysis, the following two hypotheses were developed:

H1: Fear of COVID-19 is positively related to emotional exhaustion.

H2: Fear of COVID-19 is positively related to perceived stress.

The negative psychological consequences nurses experience due to the apprehensive environment will lead them to unfavorably evaluate their jobs; they may realize that their current situation might be better if they had decided not to choose nursing as a career. That is, they regret their career choice and wish they could undo it. Zeelenberg and Pieters (2007) defined regret as "[a] comparison-based emotion of self-blame, experienced when people realize or imagine that their present situation would have been better had they decided differently in the past." Nurses facing ongoing prolonged exposure to intense stress and emotional exhaustion are likely to regret their career choice (Zeelenberg & Pieters, 2007). A longitudinal study conducted on a sample of freshman and sophomore premedical students at Indiana University showed that respondents who scored high on a self-reported measure of burnout showed significantly less interest in becoming a physician (Grace, 2018). This result concurred with findings from other studies that burnout and stress are associated with career choice regret (Dyrbye et al., 2018; Dyrbye et al., 2020; Wu et al., 2020). Thus, we hypothesized the following:

H3: Emotional exhaustion is positively related to career choice regret.

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H4: Perceived stress is positively related to career choice regret.

Nurses may regret their career choice when working in a threatening and uncertain environment. It prompts nurses to blame themselves and to think that if they had decided differently, they would not be in this situation. Continuing to think about how life might be better if they had decided differently and about protecting their lives and safety will deplete nurses' cognitive and motivational resources.

Moreover, according to COR, these nurses will "become motivated to examine the cause of their resource loss and to find ways in which they can protect their remaining resources from further depletion" (Janssen, Lam, & Huang, 2010). Hence, nurses will distance themselves from the threatening aspects of the job (limiting their time and contact with colleagues, patients, and their families). When one faces the threat of resource loss, one tends to become defensive (Halbesleben, Wheeler, & Paustian-Underdahl, 2013). Nurses facing a continuing potential threat to valuable resources (e.g., health and safety) will focus their efforts on maintaining and retaining those resources by avoiding or minimizing the frequency and time of contact with the source of the threat (supervisor, coworkers, meetings, and patients).

Furthermore, regret will lead to a loss of a valuable resource that is important for job performance: self-efficacy. Regret is an intense negative emotional state (Howard & Smith, 2021). Negative emotions have been hypothesized and empirically confirmed to have a negative effect on the perceived level of self-efficacy (Kavanagh & Bower, 1985). This will reduce the resource investment in work tasks, which will eventually lead to poorer performance.

An alternative plausible explanation for the relationship between regret and performance is based on the "locked in" phenomenon. The experience of negative emotions (e.g., regret) will cause people to want to escape the stimulus or situation that evokes such feelings (Zeelenberg, Nelissen, Breugelmans, & Pieters, 2008). Working in an unhappy and uncomfortable working place will instigate thoughts of quitting. It has been found that entrepreneurial regret increases the likelihood of exiting entrepreneurship (Hsu, Shinnar, & Anderson, 2019). Since regret is intrinsically unpleasant and aversive, people might engage in remedial behaviors to reverse or undo the decision (Zeelenberg & Pieters, 2007). Wrzesniewski et al. (2006, as cited in Budjanovcanin, Rodrigues, and Guest (2019)) described career regret as "an enduring state of wishing that one had never entered one's current occupation" (p. 3). Moreover, Budjanovcanin et al. (2019) elaborated that the word "enduring" implies a long-standing state of regret caused by the individual's inability to undo the situation. Being in an inescapable, uncontrollable, and aversive situation, nurses "experiencing regret often feel that they should have chosen a different pathway in the past, but that it is too late to change anything" (Johnson, 2016).

Nurses' feelings of regret could prompt their intention to leave the profession (Cheval et al., 2019; Santra & Giri, 2017). However, nurses who regret their career choice might perceive that changing their occupation is a non-feasible option. Professional career decisions are difficult to undo, and the potential loss of the investment an individual made in terms of time, effort, and money that results from this decision may make the initial decision to embark on this professional career irrevocable (Budjanovcanin et al., 2019), meaning that they are stuck in a non-desired occupation. This will give them the feeling of being locked in.

Working in a prolonged undesirable situation, combined with the sense that there is no alternative, can cause nurses to feel impotent and powerless, and "subsequently, they give up the belief that they can escape from the undesirable situation, developing passive or palliative coping strategies instead" (Chen & Mykletun, 2015). Perceived incapability results in learned helplessness (Wen, Huang, & Goh, 2020). Someone who feels impotent is less likely to put in the necessary effort to achieve the stated goals. This is because helplessness results in motivation loss, lessens self-confidence, and increases anxiety and feelings of uncontrollability over outcomes and events; the individual thus has difficulty perceiving that he or she has control, even when there is evidence that an objective is achievable (Schulman, 1999; Tayfur, 2012). Thus, these individuals are more likely to exhibit more passive and apathetic behavior, even when the opportunity to change the adverse and undesired situation exists (Tayfur, 2012). Beike, Markman, and Karadogan (2009) theoretically proposed and empirically proved that lost

opportunity (the perception that the regretted event is no longer amenable to change) and a sense of low closure (continued thinking about the regretted event) intensified feelings of regret. Thus, we can conclude that regret will lower the perceived capability to perform adequately in a task performance situation with heightened risk. The perceived incapability to meet the increasing job demands will demotivate employees and decrease their persistence and effort expended at work. The feeling of being locked in is negatively associated with job satisfaction (Muhonen, 2010) and positively associated with depression and fatigue (Aronsson & Göransson, 1999). Thus, we propose the following hypothesis:

H5: Career choice regret is negatively related to (a) task performance behaviors and (b) contextual performance behaviors.

3. METHODOLOGY

3.1. The Study Sample

The sample for the current study consisted of nurses working in different Jordanian hospitals. A total of 256 questionnaires were distributed, of which 185 were returned. After a visual inspection of the returned questionnaires, eight were excluded for a variety of reasons. The self-administered questionnaire included scales to measure the main variables of the study (fear of COVID-19, stress, emotional exhaustion, regret, and performance (both task and contextual)), in addition to demographic characteristics. A cover letter was attached to the questionnaire informing the respondents of the purpose of the study and assuring them that their responses would be completely confidential. Participation was anonymous and voluntary, yet nurses were encouraged to participate.

3.2. Measures

The *fear of COVID*-19 was measured using a recent scale of seven items developed by Ahorsu et al. (2020). The respondents were asked to indicate their level of agreement with each item on a five-point Likert scale ranging from "1-strongly disagree" to "5-strongly disagree." A sample item is "I am most afraid of coronavirus-19."

Perceived stress was measured using the Perceived Stress Scale (PSS). Two versions of this scale are available: the PSS-14, which consists of 14 items measuring an individual's perception of stressful experiences over the last month, and a short version of the PSS-14, the PSS-10, which comprises 10 items of the original, longer version. Cohen and Williamson (1988) reported that the PSS-10 has better psychometric characteristics than the longer version, thus they recommended the use of the PSS-10 in future research. Therefore, the PSS-10 was used in this study. Participants were asked to rate how often they felt or thought about events or situations that had occurred over the previous month. Responses were rated on a five-point Likert scale ranging from (0-never) to (4-very often). A sample item is "In the last month, how often have you felt nervous and "stressed"?"

Emotional exhaustion is a subscale of the burnout inventory (Maslach & Jackson, 1981). We used this subscale to assess the respondents' feelings of emotional exhaustion. This subscale comprises nine items that measure the feeling of being emotionally drained by a job. Participants were asked to indicate how often they experienced each feeling; responses were measured on a seven-point scale, ranging from never (0) to every day (6). A sample item is "I feel emotionally drained from my work."

The five-item scale developed by Brehaut et al. (2003) was used to measure *regret*. Respondents were asked to reflect on their decision to enter the nursing career and then indicate their level of agreement with each statement by circling a number on a five-point scale, extending from (1-strongly agree) to (5-strongly disagree). A sample item is "I regret the choice that was made."

Job performance was measured using an instrument developed by Greenslade and Jimmieson (2007). This is a 41-item instrument measuring both task and contextual performance. The items of the instrument represent a variety of behaviors in which nurses engage; 23 items measured how well nurses completed task performance behaviors on a seven-point scale ranging from much below average (1) to much above average (7). A sample item is "Listening to families' concerns." Eighteen items measured how often nurses completed contextual performance

behaviors using a seven-point scale ranging from not at all (1) to a great deal (7). A sample item is "Raising morale of other nurses in the unit."

4. RESULTS

First, Cronbach's alpha coefficient was separately calculated for each of the study variables. The reliability of the constructs ranged from 0.71 to 0.91; thus, all the values were above 0.70, the minimally acceptable lower bound of reliability (Nunnally, 1978), indicating that the reliability was sufficient and acceptable for this research. Simple linear regression was used to test the hypotheses of the study. The results of the statistical analysis are presented in Table 1.

Table 1. Regression results.

IV	DV	B	t-value	R²	F	df
FOC	Stress	0.205	3.899	0.08	15.201	1.175
FOC	EEX	0.602	5.106	0.130	26.067	1.175
Stress	Regret	0.354	3.335	0.06	11.123	1.175
EEX	Regret	0.192	4.255	0.094	18.103	1.175
Regret	TP	-0.711	8.014	0.268	64.219	1.175
Regret	CP	-0.491	5.306	0.139	28.149	1.175

Note: FOC = Fear of COVID-19, EEX = Emotional exhaustion, TP = Task performance, CP = Contextual performance.

The first two hypotheses postulated that fear of COVID-19 would have a significant positive effect on stress and emotional exhaustion. The statistical results supported both hypotheses. The results showed that fear of COVID-19 had a significant positive effect on both stress and emotional exhaustion (B = 0.205, $P < 0.001$) and (B = 0.602, $P < 0.001$), respectively. The amount of variance in the stress variable accounted for by fear of COVID-19 was 8% ($R^2 = 0.08$, $F(1.175) = 15.201$, $p < 0.001$). Also, the regression results indicated that fear of COVID-19 explained a significant proportion of the variance (13%) in emotional exhaustion ($R^2 = 0.13$, $F(1.175) = 26.067$, $p < 0.001$). Thus, hypotheses one and two were supported.

The analysis also indicated that each of the variables stress and emotional exhaustion significantly predicted nurses' career choice regret. The results revealed a significant positive relationship between stress and regret (B = 0.354, $P < 0.001$) and between emotional exhaustion and regret (B = 0.192, $P < 0.001$). Both variables accounted for a significant amount of the variance in regret. Stress explained approximately 6% of the variance in regret ($R^2 = 0.06$, $F(1.175) = 11.123$, $p < 0.001$). The proportion of variance explained by emotional exhaustion was 9.4% ($R^2 = 0.094$, $F(1.175) = 18.103$, $p < 0.001$). These results provided support for hypotheses three and four.

Finally, the results indicated that regret was a significant predictor of task performance (B = -0.711, $P < 0.001$) and contextual performance (B = -0.491, $P < 0.001$). Additionally, regret accounted for a significant proportion of the variance in each of the performance measures; it explained 26.8% of the variance in task performance ($R^2 = 0.268$, $F(1.175) = 64.219$, $p < 0.001$), and 13.9% of the variance in contextual performance ($R^2 = 0.139$, $F(1.175) = 28.149$, $p < 0.001$). These results confirmed hypothesis five, which suggested that regret is negatively associated with nurses' performance.

5. DISCUSSION

The COVID-19 pandemic posed a huge, unprecedented challenge to all societies, organizations, and employees. Protecting healthcare workers not just physically but also psychologically is of paramount importance to keep the healthcare system functioning. Extant research has examined and confirmed the detrimental effect of fear on psychological and mental health (Fitzpatrick, Harris, & Drawve, 2020; Mo et al., 2020; Wu et al., 2020); however, the effect on employee performance has been left unexplored. This is the first study we know of to investigate this effect. We developed and empirically tested a model proposing that the fear of COVID-19 represents a significant

challenge that might compromise nurses' performance and consequently the achievement of organizational goals. The findings of this study advanced our understanding of how the fear effect extends to employee job performance. This model might be used to investigate the effect of other similar large-scale crises or events on employees' psychological health and work-related outcomes.

The COVID-19 pandemic has led to a very challenging and apprehensive environment for nurses. High infection and mortality rates have exacerbated the fear of COVID-19 among nurses. The results of this study revealed that the fear of COVID-19 is positively associated with negative psychological consequences, specifically, emotional exhaustion and stress. Lack of attention to nurses' emotional responses during crises might intensify their fears, leading to higher levels of stress and emotional exhaustion. Thus, we recommend that managers do their best to dispel nurses' fears and help them avoid excessive panic. During a crisis, nurses face a great deal of uncertainty. Rather than leaving nurses to rumors and inaccurate information, which leads to an incorrect assessment of the crisis, providing them with timely, up-to-date, and accurate science-based information from trusted sources, as well as guidance and emotional and social support, will help them cope with the pandemic and mitigate their fears. Psychotherapists, psychologists, and mental professionals have a vital role in providing appropriate support for frontline nurses and alleviating their fears. Additionally, feeling adequately prepared to appropriately and effectively respond to crisis events would positively contribute to improving self-confidence and reducing the potential for chaotic responses. There is a need to train nurses to be prepared to respond to crisis events, both attitudinally and behaviorally. Nurses trained in crisis preparedness will be cognizant that crises and risks are an essential part of their profession. Understanding their role and being prepared to provide safe and effective care during a crisis will allow nurses to adequately respond to dynamic, challenging situations that are full of profound uncertainties.

The results of the current study supported the hypothesized effects of both emotional exhaustion and stress on regret, which subsequently affects job performance. These results suggest that governmental institutions, policymakers, and hospital administrations should support nurses during crises through training, interventions, and consultations. Hospital administrations should develop programs that reduce stress and emotional exhaustion. Several approaches have been suggested to prevent or reduce emotional exhaustion, such as reducing work demands, enhancing decision latitude, and improving the social climate (Seidler et al., 2014). The critical incident stress management (CISM) program (Guenthner, 2012) is an intervention and prevention program that helps organizations handle and reduce stress during times of crisis; this program might protect nurses from severe psychological trauma resulting in critical incident stress, acute stress disorder, and burnout. Stress management training will enhance nurses' ability to cope with stress in crises. Managers should be aware of and attentive to psychological and emotional consequences resulting from the fear of COVID-19, as they will have an effect on employees' job performance.

6. LIMITATIONS AND FUTURE RESEARCH

The current study has certain limitations, which can be considered avenues for future research. This study has confirmed the effect of fear on emotional exhaustion and stress and the subsequent effects. However, the effect of fear may differ according to gender. Several previous studies have revealed a significant difference in fear levels based on gender; specifically, these studies showed that females reported higher levels of fear than males (Gritsenko et al., 2021; Zolotov, Reznik, Bender, & Isralowitz, 2020). Also, Fiabane et al. (2021) found that compared to males, females reported higher levels of emotional exhaustion. However, as our model was tested on a pooled sample, future research is required to test this differential effect.

Regret has been extensively investigated in the field of economics to explain decision-making patterns (Loomes & Sugden, 1982) and in the field of marketing to explain consumer behavior (McConnell et al., 2000). Emotion is a motivating driver that influences individuals' evaluations, judgments, and behaviors (Elster, 1998; Lerner &

Keltner, 2000; Mayiwar & Björklund, 2021; Rick & Loewenstein, 2008). Yet, in the disciplines of management and organizational behavior, its role is still underexplored (Howard & Smith, 2021). This highlights the need to conduct further research on regret to gain insight into employees' behavior in the workplace. This study was a first step in this direction. We tested and found a direct negative effect of regret on performance; however, it would be fruitful to investigate factors that might buffer this effect. A specific emotion may elicit a variety of behavioral responses based on the context in which that emotion is aroused. Therefore, situational, and individual differences might influence behavioral responses to emotions (Lord & Kanfer, 2002). Personality traits might affect people's behavior and responses to external stimuli. Therefore, the model of this study may be modified to incorporate the mediating effect of certain variables on the direct effect of regret on performance. Thus, future studies might examine the influence of potential moderators (such as grit and passion for work) on the relationship between regret and employee performance.

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