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FATIGUE, SELF-COMPASSION AND LIFE SATISFACTION IN NURSES

TESIS DOCTORAL

Presentada por

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Autorización de los directores

El **Dr. José Carlos Sánchez García**, y la **Dra. Brizeida R. Hernández Sánchez,** de la Universidad de Salamanca,

CERTIFICAN:

Que **Dña. Razieh Poorhosseini Dehkordi** ha realizado, bajo su dirección, la Tesis Doctoral titulada: **"Fatigue, Self-Compassion and Life Satisfaction in Nurses"** y que esta cumple con los requisitos de calidad, originalidad y presentación requeridos en una investigación científica para optar al grado de Doctor por la Universidad de Salamanca.

Para que así conste, y tenga los efectos oportunos, los directores firman la presente autorización en Salamanca, a de de.

Fdo. José Carlos Sánchez-García   Fdo. Brizeida R. Hernández-Sánchez

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ABSTRACT

Nursing is a universal profession that plays a crucial role in ensuring the health and well-being of populations around the world. The demand for nurses is high and increasing, particularly as the world's population continues to grow and age, and as people live longer and require more medical care. In many countries, nursing is considered one of the most trusted and respected professions. A nurse is a healthcare professional who is accountable for providing care and support to patients, including administering medications, performing diagnostic tests, and monitoring patients' progress. Nurses often work in hospitals, nursing homes, and other healthcare facilities and may specialize in areas such as pediatrics, oncology, or critical care. They collaborate with other healthcare professionals, such as doctors and physical therapists, to provide comprehensive care for patients. Nurses are also responsible for educating patients and their families about their health conditions, treatments, and recovery processes. They play a key role in promoting health and preventing disease by conducting health screenings, administering vaccinations, and conducting health education. Additionally, nurses are responsible for maintaining accurate and complete patient records and ensuring that patients receive the most effective care (Thakre et al., 2017; Iseminger et al., 2009).

The profession of nursing is perceived as being demanding and stressful (Decker, 1997; Jones & Johnston, 2000; Aiken et al., 2001; Watson et al., 2008; Msiska et al., 2014). In a position that exposes them to trying circumstances including long hours, night shifts, and providing support to grieving families and terminally ill patients. Continuous presence in a stressful work environment causes symptoms of depression and excessive anxiety in nurses. They become fatigued and burnout out as a result and nurses' well-being is disturbed. Fatigue among nurses has a significant impact on the effectiveness and safety of their work. Nurse fatigue can lead to decreased job performance, decreased patient satisfaction, and an increased risk of medical errors. Fatigue can have a profound effect on the quality of life, as it can make it difficult to perform daily activities and participate in enjoyable activities. In some cases, fatigue can also lead to reduced work performance and an elevated risk of accidents or errors (McGrath et al., 1989; Clegg, 2001; Duarte et al., 2016). To prevent and relieve nurse fatigue, implementing policies and measures that promote work-life balance, and providing resources for self-care and stress management might also support nurse well-being and reduce the risk of burnout. Consequently, based on the nurses' role as one of the most influential members of the health care team, evaluating and recognizing factors that affect their satisfaction with life constitutes a valid measure for nurses, and it is approved for the effectiveness of providing health care (Bartosiewicz et al., 2020; Demerouti et al., 2000).

In recent years, there has been a growing movement to recognize the potential role of self-compassion in many fields, such as health care and especially nursing (Goetz et al., 2010; Wiklund & Wagner, 2013). Nurses' compassion towards themselves, as caregivers, creates distinct impacts. Self-compassion is a powerful resource and has helped nurses to

face the experiences and events of their work environment and life (Shapiro et al., 2005). In addition, nurses cannot have true compassion for others without compassion for themselves; this highlights the significance of self-compassion as an influential component of mental health (Heffernan et al., 2010b).

This thesis explores the relationship between fatigue, life satisfaction, and self-compassion in nurses, with the aim of investigating the mediating role of self-compassion in the relationship between fatigue and life satisfaction. This descriptive-analytical study with a cross-sectional design was conducted on 196 nurses working in a public hospital in Isfahan (Iran) in 2022. Data were collected using a demographic questionnaire, the Chalder Fatigue Scale, Self-Compassion Scale, and Life Satisfaction Scale. Pearson correlation analysis was performed between the different variables. In order to assess the mediating role of self-compassion in the relationship between fatigue and life satisfaction, the structural model was evaluated using the coefficient of determination (R^2), and hypothesis testing.

Results showed that fatigue with life satisfaction and self-compassion has a positive correlation, and self-compassion is positively related to life satisfaction. Findings further showed that self-compassion plays a mediating role in the relationship between fatigue and life satisfaction. Following Nitzl et al. (2016), a significant total mediation relationship is confirmed between Fatigue and Life Satisfaction through Self-Compassion. Research findings will have constructive implications for nursing practice and healthcare policy.

Results from this study expand our knowledge of the potential mediating role of self-compassion in increasing nurse life satisfaction. By highlighting the importance of self-compassion, the study may be useful for developing interventions and programs aimed at promoting self-compassion among nurses. Ultimately, the study aims to contribute to a better understanding of the factors that influence the life satisfaction of nurses, with the ultimate goal of improving the quality of care provided to patients.

RESUMEN

La enfermería es una profesión universal que juega un papel crucial para garantizar la salud y el bienestar de las poblaciones de todo el mundo. La demanda de enfermeras es alta y va en aumento, sobre todo porque la población mundial sigue creciendo y envejeciendo, y las personas viven más y necesitan más atención médica. En muchos países, la enfermería se considera una de las profesiones más confiables y respetadas, una enfermera es un profesional de la salud responsable de brindar atención y apoyo a los pacientes, incluida la administración de medicamentos, la realización de pruebas de diagnóstico y el seguimiento del progreso de los pacientes. Las enfermeras a menudo trabajan en hospitales, hogares de ancianos y otros centros de atención médica y pueden especializarse en áreas como pediatría, oncología o cuidados intensivos. Colaboran con otros profesionales de la salud, como médicos y fisioterapeutas, para brindar una atención integral a los pacientes. Las enfermeras también son responsables de educar a los pacientes y sus familias sobre sus condiciones de salud, tratamientos y procesos de recuperación. Desempeñan un papel clave en la promoción de la salud y la prevención de enfermedades mediante la realización de exámenes de salud, la administración de vacunas y la educación sanitaria. Además, las enfermeras son responsables de mantener registros de pacientes precisos y completos y garantizar que los pacientes reciban la atención más eficaz (Thakre et al., 2017; Iseminger et al., 2009).

La profesión de enfermería se percibe como exigente y estresante (Decker, 1997; Jones & Johnston, 2000; Aiken et al., 2001; Watson et al., 2008; Msiska et al., 2014). En una posición que los expone a circunstancias difíciles que incluyen largas horas, turnos nocturnos y brindar apoyo a familias en duelo y pacientes con enfermedades terminales. La presencia continua en un ambiente de trabajo estresante provoca síntomas de depresión y ansiedad excesiva en las enfermeras. Como resultado, se fatigan y se agotan y se altera el bienestar de las enfermeras. La fatiga entre las enfermeras tiene un impacto significativo en la eficacia y seguridad de su trabajo. La fatiga de la enfermera puede conducir a una disminución del rendimiento laboral, una disminución de la satisfacción del paciente y un mayor riesgo de errores médicos. La fatiga puede tener un efecto profundo en la calidad de vida, ya que puede dificultar la realización de las actividades diarias y la participación en actividades placenteras. En algunos casos, la fatiga también puede conducir a un rendimiento laboral reducido y un riesgo elevado de accidentes o errores (McGrath et al., 1989; Clegg, 2001; Duarte et al., 2016). Para prevenir y aliviar la fatiga de las enfermeras, la implementación de políticas y medidas que promuevan el equilibrio entre el trabajo y la vida personal y la provisión de recursos para el autocuidado y el manejo del estrés también podrían apoyar el bienestar de las enfermeras y reducir el riesgo de agotamiento.

Los estudios han demostrado que la satisfacción con la vida de una enfermera puede verse afectada por la naturaleza exigente y estresante de la profesión de enfermería. Esto puede provocar agotamiento, agotamiento emocional y sentimientos de despersonalización e influir en las competencias de las enfermeras. Sin embargo, la satisfacción con la vida en los

sistemas de atención de la salud es fundamental desde el punto de vista de que está en estrecha interacción con la salud y que existe un vínculo estrecho entre la salud física y mental. En consecuencia, con base en el papel del enfermero como uno de los miembros más influyentes del equipo de salud, evaluar y reconocer los factores que afectan su satisfacción con la vida constituye una medida válida para los enfermeros, y está aprobada para la efectividad de la prestación del cuidado en salud (Bartosiewicz et al., 2020; Demerouti et al., 2000).

En los últimos años, ha habido un movimiento creciente para reconocer el papel potencial de la autocompasión en muchos campos, como el cuidado de la salud y especialmente la enfermería (Goetz et al., 2010; Wiklund & Wagner, 2013). La compasión de las enfermeras hacia sí mismas, como cuidadoras, genera distintos impactos. La autocompasión es un recurso poderoso y ha ayudado a las enfermeras a enfrentar las experiencias y eventos de su entorno laboral y de vida (Shapiro et al., 2005). Además, las enfermeras no pueden tener verdadera compasión por los demás sin tener compasión por sí mismas; esto destaca la importancia de la autocompasión como un componente influyente de la salud mental (Heffernan et al., 2010b).

Esta tesis explora la relación entre fatiga, satisfacción con la vida y autocompasión en enfermeras, con el objetivo de investigar el papel mediador de la autocompasión en la relación entre fatiga y satisfacción con la vida. Este estudio descriptivo-analítico con un diseño transversal se realizó con una muestra de 196 enfermeras que trabajaban en un hospital público en Isfahan (Irán) en 2022. Los datos se recopilaron mediante un cuestionario demográfico, la Escala de Fatiga de Chalder, la Escala de Autocompasión y la Escala de Satisfacción con la Vida. Se realizó análisis de correlación de Pearson entre las diferentes variables. Para evaluar el papel mediador de la autocompasión en la relación entre la fatiga y la satisfacción con la vida, se evaluó el modelo estructural mediante el coeficiente de determinación ($R2$) y la prueba de hipótesis.

Los resultados mostraron que la fatiga con la satisfacción con la vida y la autocompasión tiene una correlación positiva, y la autocompasión se relaciona positivamente con la satisfacción con la vida. Los hallazgos mostraron además que la autocompasión juega un papel mediador en la relación entre la fatiga y la satisfacción con la vida. Siguiendo a Nitzl et al. (2016), se confirma una relación significativa de mediación total entre Fatiga y Satisfacción con la Vida a través de la Autocompasión. En conclusión, si bien la fatiga puede parecer inicialmente un factor negativo, también puede asociarse con resultados positivos, según el contexto y la percepción individual.

Estos hallazgos, además de tener implicaciones constructivas para la práctica de enfermería y la política de salud, enriquecen la literatura sobre el posible papel mediador de la autocompasión en el aumento de la satisfacción con la vida de las enfermeras. Además, al resaltar la importancia de la autocompasión, el estudio puede ayudar en el desarrollo de intervenciones y programas destinados a promover la autocompasión entre las enfermeras.

En última instancia, la presente tesis pretende contribuir a una mejor comprensión de los factores que influyen en la satisfacción con la vida de las enfermeras, con el objetivo final de mejorar la calidad de la atención prestada a los pacientes.

چکیده

پرستاری یک حرفه جهانی است که نقش مهمی در تضمین سلامت و رفاه جمعیت در سراسر جهان ایفا می کند. تقاضا برای پرستاران به ویژه با ادامه رشد و پیری جمعیت جهان و با افزایش عمر مردم و نیاز به مراقبت های پزشکی بیشتر، بالا و رو به افزایش است. در بسیاری از کشورها، پرستاری به عنوان یکی از حرفه های مورد اعتماد و قابل احترام در نظر گرفته می شود. پرستار یک متخصص مراقبت های بهداشتی است که مسئول ارائه مراقبت و حمایت از بیماران از جمله تجویز داروها، انجام تست های تشخیصی و نظارت بر پیشرفت بیماران می باشد. پرستاران اغلب در بیمارستان‌ها، خانه‌های سالمندان و سایر مراکز مراقبت‌های بهداشتی کار می‌کنند و ممکن است در زمینه‌هایی مانند اطفال، انکولوژی یا مراقبت‌های ویژه تخصص داشته باشند. آنها با سایر متخصصان مراقبت های بهداشتی، مانند پزشکان و فیزیوتراپ ها، برای ارائه مراقبت های جامع برای بیماران همکاری می کنند. پرستاران همچنین مسئول آموزش بیماران و خانواده هایشان در مورد شرایط سلامت، درمان و فرآیندهای بهبودی هستند. آنها با انجام غربالگری های بهداشتی، انجام واکسیناسیون و انجام آموزش های بهداشتی نقش کلیدی در ارتقای سلامت و پیشگیری از بیماری دارند. علاوه بر این، پرستاران مسئول نگهداری سوابق دقیق و کامل بیمار و اطمینان از دریافت مؤثرترین مراقبت از بیماران هستند (Thakre et al., 2017; Isminger et al., 2009).

حرفه پرستاری به عنوان شغلی سخت و پر استرس تلقی می شود (دکر، 1997؛ جونز و جانستون، 2000؛ آیکن و همکاران، 2001؛ واتسون و همکاران، 2008؛ مسیکا و همکاران، 2014). در موقعیتی که آنها را در معرض شرایط سخت از جمله ساعات طولانی، شیفت های شبانه، و حمایت از خانواده های داغدار و بیماران لاعلاج قرار می دهد. حضور مستمر در محیط کاری پر استرس باعث بروز علائم افسردگی و اضطراب مفرط در پرستاران می شود. در نتیجه خستگی و فرسودگی شغلی پرستاران را به همراه دارد. خستگی در میان پرستاران بر اثربخشی و ایمنی کار آنها تأثیر بسزایی دارد. خستگی پرستار می تواند منجر به کاهش عملکرد شغلی، کاهش رضایت بیمار و افزایش خطر خطاهای پزشکی شود. خستگی می تواند تأثیر عمیقی بر کیفیت زندگی داشته باشد، زیرا می تواند انجام فعالیت های روزانه و شرکت در فعالیت های لذت بخش را دشوار کند. در برخی موارد، خستگی همچنین می تواند منجر به کاهش عملکرد کاری و افزایش خطر تصادف یا خطا شود (مک گرات و همکاران، 1989؛ کلگ، 2001؛ دوارت و همکاران، 2016). برای پیشگیری و رفع خستگی پرستار، اجرای سیاست‌ها و اقداماتی که تعادل بین کار و زندگی را ارتقاء می‌دهند، و فراهم کردن منابعی برای خودمراقبتی و مدیریت استرس نیز ممکن است از بهزیستی پرستار حمایت کرده و خطر فرسودگی شغلی را کاهش دهد. در نتیجه با توجه به نقش پرستاران به عنوان یکی از تأثیرگذارترین اعضای تیم مراقبت سلامت، ارزیابی و شناخت عوامل مؤثر بر رضایت آنان از زندگی، معیاری معتبر برای پرستاران است و برای اثربخشی ارائه مراقبت‌های بهداشتی تأیید شده است (Bartosiewicz و همکاران، 2020؛ Demerouti و همکاران، 2000).

در سال‌های اخیر، جنبش فزاینده‌ای برای شناخت نقش بالقوه شفقت به خود در بسیاری از زمینه‌ها، مانند مراقبت‌های بهداشتی و بهویژه پرستاری وجود داشته است (گوتز و همکاران، 2010؛ ویکلوند و واگنر، 2013). دلسوزی پرستاران نسبت به خود، به عنوان مراقب، تأثیرات متمایز ایجاد می کند. شفقت به خود منبعی قدرتمند است و به پرستاران کمک کرده تا با تجربیات و رویدادهای محیط کار و زندگی خود مواجه شوند (شاپیرو و همکاران، 2005). علاوه بر این، پرستاران نمی توانند بدون دلسوزی برای خود، برای دیگران شفقت واقعی داشته باشند. این امر اهمیت شفقت به خود را به عنوان یک مؤلفه تأثیرگذار در سلامت روان برجسته می کند (هفرنان و همکاران، 2010b).

این پایان نامه به بررسی رابطه بین خستگی، رضایت از زندگی و شفقت به خود در پرستاران با هدف بررسی نقش واسطه ای شفقت به خود در رابطه بین خستگی و رضایت از زندگی می پردازد. این مطالعه توصیفی- تحلیلی با طرح مقطعی بر روی 196 پرستار شاغل در یکی از بیمارستان‌های دولتی شهر اصفهان در کشورایران در سال 1401 انجام شد. داده‌ها با استفاده از پرسشنامه جمعیت‌شناختی، مقیاس خستگی چالدر، مقیاس شفقت به خود و مقیاس رضایت از زندگی جمع‌آوری شد. تحلیل همبستگی پیرسون بین متغیرهای مختلف انجام شد. به منظور ارزیابی نقش میانجی شفقت به خود در رابطه بین خستگی و رضایت از زندگی، مدل ساختاری با استفاده از ضریب تعیین (R2) و آزمون فرضیه مورد ارزیابی قرار گرفت.

نتایج نشان داد که خستگی با رضایت از زندگی و شفقت به خود همبستگی مثبت و شفقت به خود با رضایت از زندگی رابطه مثبت دارد. یافته‌ها همچنین نشان داد که شفقت به خود نقش واسطه‌ای در رابطه بین خستگی و رضایت از زندگی دارد. با پیروی از Nitzl و همکاران (2016)، یک رابطه میانجی کل معنادار بین خستگی و رضایت از زندگی از طریق شفقت به خود تأیید شد. یافته های تحقیق پیامدهای سازنده ای برای عملکرد پرستاری و سیاست مراقبت های بهداشتی خواهد داشت.

نتایج این مطالعه دانش ما را در مورد نقش واسطه‌ای بالقوه دلسوزی به خود در افزایش رضایت از زندگی پرستاران

گسترش می‌دهد. با برجسته کردن اهمیت شفقت به خود، این مطالعه ممکن است برای توسعه مداخلات و برنامه‌هایی با هدف ارتقای شفقت به خود در میان پرستاران مفید باشد. در نهایت، هدف این مطالعه کمک به درک بهتر عوامل مؤثر بر رضایت از زندگی پرستاران، با هدف نهایی بهبود کیفیت مراقبت ارائه شده به بیماران است.

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Tables and Figures

Introduction and Justification

In the global healthcare system, nurses are a critical component and continue to play a decisive role in improving the health and quality of life of people around the world. Nursing involves the protection, promotion, and optimization of health and abilities, the prevention of diseases and damage, and the relief of human agony. The profession of nurse can be physically, emotionally, and mentally demanding. They often work long hours, including nights, weekends, and holidays, and may be required to work overtime. Nurses are also exposed to a wide range of health hazards, such as infectious diseases and chemical exposure. In addition, nurses may experience significant levels of stress due to the fast-paced nature of their work, the possibility of facing life-and-death situations, and addressing the emotional needs of interacting with patients and their families. In recent decades, the role of the nurse has changed from a passive state to an independent and decision-making state. Today, nurses control complex physiological information, use complex equipment to keep patients alive, collaborate with other care team members in delivering patient services, and manage the spending of millions of dollars on healthcare programs. The role of a nurse is not limited to hospitals. It can be seen in different environments such as community, school, or public health nursing. Nurses are also able to do independent work such as nursing entrepreneurship. All these factors have caused their professional responsibility to increase. Therefore, the nature of the nursing profession is such that nurses are constantly exposed to mental pressure and stress and are prone to fatigue due to the stressful work environment and tremendous workload (Fenswick & Hartmann, 2009; Weld & Garmon Bibb, 2009; Estrada & Tan, 2014). The level of fatigue reported by nurses is moderate to high based on research studies. The importance of nurse fatigue lies in its harmful consequences. The most frequently seen effects include issues with nurses' physical and mental health, a decline in the standard of care and patient safety, work discontent, a desire to leave the field, and organizational costs (Austin et al., 2020; Bae & Fabry, 2014). A survey of nurse leaders found that organizations were failing to monitor nurse fatigue and did not have fatigue management policies and resources to support fatigue-related decisions. Nurses also view fatigue as a normal part of the job and acknowledging the feeling of fatigue can be considered a sign of weakness (Cochran, 2021).

In today's world, fatigue is common, and it negatively impacts work, family, and social relationships. In fact, fatigue is an obvious and natural response to high physical activity, long-term mental stress, and sleep deprivation, which deeply influences many aspects of a person's life (Sadock, 2015). Fatigue in nurses is intricate and appears in response to individual needs and healthcare systems. Nurse fatigue is defined as a mental and multidimensional feeling of tiredness that is physically and mentally pervasive and interferes with the physical and cognitive ability of the nurse and may even persist despite periods of rest (Zhan et al., 2020; Berry & Curry, 2013). Since fatigue is a complex phenomenon and negatively affects the biological, psychological, and cognitive processes of individuals, this in turn can lead to negative effects such as disruption in the personal and professional lives of nurses and abandonment of work (Salyers et al., 2017; Sarafis et al., 2016; Fortney et al., 2013). Taking into account the importance of reducing fatigue in raising

the productivity of nurses in the workplace, improving the quality of care and subsequently the satisfaction of patients with the services received, lowering job leaving and elevating the job satisfaction of nurses and its positive effects on providing health system services and ultimately enhancing the level of empowerment and life satisfaction in nurses, the fatigue variable is known as an imperative subject of study in nursing .

During the last decade and with the expansion of topics related to positive psychology, the desire to research the constructive aspects of health has also increased in parallel with the negative aspects. One of the concepts of positive psychology that has recently received attention is the concept of life satisfaction. Since life satisfaction is a significant factor in well-being, it must be addressed as a priority. Life satisfaction indicates contentment with human desires and basic needs. In addition to the satisfaction of basic requirements, life satisfaction can also be expressed as the positive perception and pleasant feeling that people have towards diverse aspects of their lives in general or some parts of life such as family and work life (Anand & Arora, 2009). Life satisfaction in nurses refers to a nurse's overall sense of happiness and fulfillment in their life, including their personal and professional experiences. It is a complex and multi-dimensional construct that encompasses a wide range of emotional, psychological, and physical factors. As well, it is a key indicator of well-being and quality of life and is of importance for both the nurse and the healthcare organization they work for. People who have a high level of life satisfaction are more resilient to stressful life experiences, are better at problem-solving, and feel far less contradiction between the stressors in their personal lives, workplaces, and jobs (Öztürk & Karabulutlu, 2021). In addition, life satisfaction predicts a person's ability to function well in life and social roles (Baird et al., 2010). Life satisfaction can be influenced by various aspects of life, including material and spiritual factors. For instance, general health, family living conditions, leisure activities, ability to build relationships, compatibility with others, happiness felt in everyday life, goal setting, satisfaction, and success are all components of life satisfaction. Moreover, work and professional conditions influence a sense of life satisfaction (Yılmaz & Arslan, 2013).

Evaluating life satisfaction in health care systems is critical because, according to research, this concept is inextricably linked to health. There is a close relationship between physical and mental health and life satisfaction (Meléndez et al., 2009). Life satisfaction among nurses can be influenced by a number of factors, including job stress, workload, pay and benefits, support from colleagues and superiors, and a positive work-life balance. Nurses are accountable for their duties and responsibilities to patients and their recovery. On the other hand, due to close interaction with their organizations, they are under a lot of pressure at work. Nursing stress and work tension gradually lead to nurses losing their strength and power, causing conflict in their family and work lives. With the occurrence of family-work conflict, the level of positive emotions of nurses towards life and then towards family life is reduced and thus the satisfaction with life and family is also diminished (Shockley & Singla, 2011). Lee (2004) states nurses have both personal and professional aspects to their

existence and overall satisfaction issues can be influenced by personal and work factors (Lee et al., 2004). Thus, since the relationship between individual factors and overall satisfaction with life is two-way, the existence of variables and psychological capital of nurses can greatly affect hope and satisfaction with their life and are suitable targets for intervention (Yang et al., 2016).

Self-compassion is a relatively emerging psychological trait that serves as a psychological and emotional flexibility factor when adjusting to obstacles in life and at work. Self-compassion consists of treating yourself well and accepting yourself when things are difficult or when you realize that you are inadequate. Self-compassion, by paying attention to human commonalities, considers suffering and failure as inevitable dimensions of common human experiences. Finally, self-compassion is a balanced awareness of one's feelings, which means the ability to face and embrace painful feelings and thoughts without exaggeration, or pity instead of avoiding them (Neff, 2003). In other words, self-compassion is a healthy way to communicate with the self and is accompanied by positive psychological components such as altruism, kindness, and happiness, which can help people maintain their health more effectively (Breines et al., 2014). Although self-compassion is linked with positive emotions, this trait is not simply a positive way of thinking, but rather the ability to hold negative feelings in non-judgmental awareness without suppressing or denying the negative aspects of the experience that affords people valuable coping mechanisms (Neff et al., 2007). A high level of self-compassion protects people from feeling stressed when they encounter potentially humiliating circumstances and challenging life circumstances, and it encourages them to be nice to themselves, hold onto hope, and discover new meaning in life (Leary et al., 2007). Overall, the relationship between self-compassion and mental health is complex and multifaceted, but the evidence suggests that developing a self-compassionate approach to self-care can be an effective way to promote mental health conditions. In the context of nursing, self-compassion can be helpful for promoting emotional well-being and resilience in the face of the challenges and stressors commonly experienced in the field. Research has shown that self-compassion can be associated with a range of positive outcomes, including lower levels of stress and burnout, increased life satisfaction, and improved emotional regulation. Additionally, self-compassion has been linked to improved relationships with patients, as well as higher job satisfaction and performance. Studies support the idea that self-compassion is crucial for nurses since it is viewed as a positive quality in nurses and is related to nursing competency (Kurebayashi, 2020). Being exposed to people's problems and illnesses on a daily basis has substantial consequences for nurses, and a high level of self-compassion may be a strategy to maintain their physical and mental health in addition to enhancing their ability to perform at work (Fredrickson et al., 2008; Hall et al., 2013).

In reviewing the background of the research, in addition to providing confirmation of the relationships between the variables of fatigue, self-compassion, and life satisfaction, it also clarified the lack and defects of the available scientific literature in two ways for us.

First, there have only been a limited amount of studies examining the variables mentioned in the nursing population. Considering the importance of the role of nurses as key members of the healthcare team and taking into account the effects of fatigue on their health and performance, and knowing that life satisfaction among nurses directly affects the organization's ability to provide appropriate services to people, this investigation is focused on the nursing community. Second, most of the published studies are limited to the relationship between life satisfaction and a set of contextual variables, and no local study was found that investigated the existence of variables and psychological capitals such as self-compassion in relation to life satisfaction and fatigue. Based on the most recent studies, the presence of variables and the psychological capital of nurses can have a significant impact on hope and satisfaction with life. Consequently, these variables are suitable targets for evaluation. On the other hand, psychological interventions can be an effective way to relieve fatigue, especially if fatigue is caused or exacerbated by mental factors such as stress, anxiety, or depression. In light of the fact that self-compassion may be beneficial in promoting emotional well-being and resilience in the face of challenges and stressors encountered in these situations. Thus, we sought to resolve the deficiencies and shortcomings of the existing scientific literature and answer the question whether the variable of self-compassion as a mediating variable affects nurses' life satisfaction by influencing fatigue. According to our knowledge, this is the first study that investigated the mediated effect of self-compassion on the relationship between fatigue and life satisfaction in nurses. In addition to the main purpose of this study, our specific goals include determining the relationship between fatigue and life satisfaction, determining the relationship between self-compassion and fatigue, and determining the relationship between self-compassion and life satisfaction among nurses.

CHAPTER 1:
Fatigue

1.1 Conceptualization of Fatigue

Fatigue is an integral part of today's fast-paced world. Fatigue can be conceptualized as a state of physical and/or mental exhaustion resulting from prolonged or intense physical or mental activity. It is a subjective feeling of tiredness, weakness, and lack of energy that can impair an individual's ability to perform daily activities. It is important to differentiate fatigue from normal tiredness or temporary sleepiness, which are normal responses to physical exertion or inadequate sleep. Fatigue is a persistent feeling of exhaustion that is not alleviated by rest or sleep. In fact, fatigue is a state that only a person can recognize. An individual suffering from fatigue experiences a continuous feeling of decreasing capacity for mental and physical performance. This can lead to decreased performance and increased absenteeism; in addition, it has a significant impact on a person's daily life, as well as their relationships, and overall health (Barnett et al., 1999; Marco & Starkey, 1954). Some consider fatigue to be one-dimensional and it is caused by a lack of strength, energy, and a kind of feeling of not having sufficient power. Based on objective observations and physiological data, fatigue is defined as the inability to maintain the required force or power output during continuous or repeated muscle contractions. This is a decrease in muscle work and performance. However, clinical studies tend to focus on self-reported feelings of fatigue and define fatigue as a sensation associated with perceived mental fatigue. This feeling of fatigue is what individuals generally report. Physiological definitions of fatigue are easier to measure, but the subjective feeling of fatigue is not directly observable. Furthermore, this feeling of fatigue does not always correspond directly to physiological manifestations (Stokes et al., 1988; Ream & Richardson, 1996).

In response to the complex nature of fatigue, most measures of fatigue have moved from the feeling of fatigue to a more multidimensional approach. These measures assess the impact of fatigue on the mental and physical aspects of fatigue, daily activities, and other related characteristics and symptoms (Chalder et al., 1993; Cope, 1992). Smets and his colleagues view fatigue as an interaction between the mind, body, activity, and motivation. Depending on fatigue's source, its effects may manifest as physical, mental, reduced activity, or reduced motivation (Smets et al., 1995). Balogun et al. (2002) describe fatigue as a mental unpleasant feeling that forms a spectrum from feeling weak to exhaustion and interferes with the ability to play a role and personal activity. Ward and Winters (2003) consider fatigue as an overwhelming feeling of physical exhaustion that threatens people's lives. A person's ability to perform activities and roles is negatively affected by this vague and unpleasant symptom. In fact, fatigue is a common and natural response to intense physical exertion, sustained mental stress, and sleep deprivation, although it can also be a non-specific symptom of other psychological disorders or injuries. The term "nurse fatigue" describes the physical and mental exhaustion that nurses experience as a result of the demands of their jobs. Nursing is a tough and difficult profession, and nurses frequently experience high amounts of stress at work, which can cause weariness. Nurses put in excessive hours and switch shifts, which throws off their sleep-wake cycles and makes them tired. Nurses

frequently perform physical duties while also supporting patients and their families emotionally, which can add to weariness. Long shifts and not enough sleep are common for nurses, which can make them feel more exhausted. Long-term exhaustion can result in chronic fatigue syndrome, which is marked by ongoing exhaustion, poor mental and physical health, and sleep disturbances (Cho & Steege, 2021).

Factors that affect the personal manifestation of an unpleasant feeling such as fatigue are divided into three physiological, psychological, and situational groups. Physiological factors include dysfunction of normal body systems such as the heart, vascular pathological defects, problems such as infection, and energy infrastructure such as nutrition. Acquired immune syndrome, adrenocortical gland insufficiency, anemia, cancer, obstructive pulmonary disease, diabetes, heart failure, hypothyroidism, Lyme disease infection, malnutrition, kidney failure, carbon monoxide poisoning, and surgery are classified as physiological factors. The psychological aspects of fatigue refer to the mental and emotional experiences that a person may encounter when they are experiencing fatigue. The psychological aspects of fatigue can include changes in mood, impaired cognitive function, reduced motivation, and sleep disturbances. These aspects can have a significant impact on a person's mental well-being and ability to cope with daily life. Situational items: These consist of demographic characteristics like age and sex, lifestyle components like job status, and individual characteristics such as experiences of previous illnesses. Each of these elements directly impacts fatigue (Friesen et al., 2008).

Fatigue as a health problem leads to slowing down of thought processes, impaired attention and perception, diminished physical capacity, irritability, forgetfulness, difficulties in dealing with unexpected situations, and difficulties in communicating (Çelik et al., 2017; Drake & Steege, 2016; Graves & Simmons, 2009). There are several ways that fatigue can appear, including physical, mental, and emotional symptoms. Physical fatigue may lead to muscle weakness, low endurance, and reduced physical performance. Mental fatigue may cause difficulty concentrating, memory problems, and impaired cognitive function. Emotional fatigue may manifest itself as irritability, mood swings, and reduced emotional resilience. People who experience fatigue may find it difficult to concentrate, make decisions, and perform even routine tasks. In extreme cases, fatigue can result in depression, anxiety, and other mental health issues (Barnett et al., 1999).

People of various ages, genders, and socioeconomic backgrounds may suffer from fatigue, which can significantly disrupt their day-to-day activities. In many workplaces around the world, fatigue is a significant issue, particularly in industries that involve long hours, shift work, and high levels of physical or mental demand. In these circumstances, fatigue can increase the risk of accidents and injuries, as well as decrease productivity and performance. For example, in the transportation industry, fatigue can be a major factor in accidents involving trains and commercial vehicles. Pilots, air traffic controllers, train operators, and truck drivers may work long hours and irregular shifts, which can disrupt their

sleep patterns and increase the risk of fatigue-related errors. In the healthcare industry, fatigue can also be a significant problem, particularly for nurses and physicians who work long hours and irregular shifts. Fatigue can impair their ability to provide quality care, leading to medical errors and decreased patient outcomes. Additionally, nurse fatigue decreases nurses' physical and mental health which can have a significant impact on a nurse's quality of life and overall life satisfaction (Sieber et al., 2022; Zou et al., 2021).

In general, fatigue is a complex concept that can be influenced by a variety of factors. By understanding the causes and consequences of fatigue, individuals can take steps to manage and prevent it, leading to improved health and well-being. Basically, it's a feeling of exhaustion caused by physical or mental work. To manage and prevent fatigue, it is imperative to identify the underlying causes and make appropriate lifestyle changes. Fatigue management strategies may involve lifestyle changes, such as improving sleep habits, adopting a healthy diet, reducing stress, engaging in regular exercise, adjusting the work environment, prioritizing tasks, avoiding smoking, and limiting caffeine and alcohol. In some cases, medical treatment may be necessary to address an underlying medical condition or symptom. It may also involve cognitive-behavioral therapy, relaxation techniques, and medication. Psychological treatments such as Cognitive-behavioral therapy, Mindfulness-based stress reduction, and Acceptance and commitment therapy might be effective ways to relieve fatigue, especially if the fatigue is caused or exacerbated by psychological factors such as stress, anxiety, or depression. Some psychological treatments can be used alone or in combination with other treatments, such as medication or lifestyle changes. It's important to work with a qualified mental health professional to determine the most effective treatment plan. It's essential to note that the effectiveness of these psychological treatments can vary depending on the individual and the underlying cause of fatigue. Fatigue management can help individuals improve their quality of life, reduce the risk of accidents and injuries, and promote overall health and well-being (Torres-Harding & Jason, 2005; Romani, 2008).

1.2 Prevalence of fatigue

Studies show that one-fifth of patients turn to the family doctor because of fatigue, and one-third of teenagers complain of fatigue at least four days a week. The prevalence of this disorder is reported to be 7.11% in English patients and 10.7% in the entire population of Hong Kong. Fatigue is also common as a complaint in chronic diseases, although fatigue in long-term diseases is chronic in nature. In addition, this symptom is more frequent in depression, and physical and anxiety disorders (Sadock, 2015). According to some studies, the prevalence of fatigue in healthy people is between 7 and 45%. 27% of UK adults (a third of women and a fifth of men) and 24% of adults in the US report suffering from fatigue for 2 weeks or more. Two-thirds of these people are unable to identify the cause of their fatigue (Rosenthal et al., 2008). Most research confirms that fatigue is more prevalent in women than in men. In women, fatigue is a 1/3 heightened risk than in men, and factors related to

the endocrine glands and stress can be listed as predisposing factors. Fatigue is more common in lower social classes. Studies have shown that in Korea, fatigue is more frequent in poorer socio-economic classes, while studies in affluent French classes have shown the least fatigue (Ranjith, 2005). According to research studies, fatigue is one of the most common problems reported by nurses. Maytum et al. (2004) showed that the prevalence of fatigue in nurses is high and nurses often complain about fatigue. Also, the Canadian Nurses Association and the Nurses Association of Ontario based on a study in 2010 showed that nurses experience significant levels of fatigue, which is a major negative impacting factor in the nursing profession and in the health care system (Hooper et al., 2010). In another study by Raftopoulos et al., the prevalence of nurses' fatigue was 91.9% (Raftopoulos et al., 2012). In a study on nurses who dealt with chronic patients, Meyer et al found the leel of this phenomenon to be moderate to high (Meyer et al., 2015). A study conducted in 2022 identified fatigue and related factors among clinical nurses during the COVID-19 pandemic. In the study, 62.0% of the participants reported fatigue (Lee & Choi, 2022). Fatigue is also a common problem among hospital nursing personnel in Iran. According to the findings of the latest studies in Iran, nurses are more fatigued than average (Hosseini et al., 2021). For example, in a study published in 2018, the total fatigue score was 52.5 (Bazazan et al., 2018). Therefore, it can be concluded that fatigue is a common problem among nurses.

1.3 Sources of Fatigue

Fatigue, or a feeling of tiredness or exhaustion, can have many different sources. Not getting enough sleep or having poor quality sleep, poor nutrition, overworking work or other physical activities, and overworking the brain, such as through extended periods of concentration, all lead to feelings of fatigue. Fatigue may be caused by illnesses such as viral or bacterial infections, autoimmune and chronic inflammatory diseases, cancer, anemia, diabetes, thyroid disorders, heart disease, AIDS, chronic fatigue syndrome, and psychiatric disorders like major depression and anxiety. Also, fatigue may be caused by medications prescribed for insomnia, chemotherapy drugs, and antihistamines. Certain medications, such as those used to treat depression or high blood pressure, can result in fatigue as a side effect. Radiation and chemotherapy are also known to contribute to fatigue (Lundh et al., 2009; Manu et al., 1992). In addition to the factors mentioned, fatigue can as well be influenced by external factors such as environmental conditions (e.g. temperature, noise, and lighting), workload demands, and personal circumstances. For example, work-related stress and long work hours can contribute to chronic fatigue. However, fatigue is more or less common among healthy people. In other words, since the phenomenon of fatigue can be observed in non-diseased populations to different degrees, the hypothesis is raised that the existence of illness is not the only source of fatigue and other factors are equally effective at causing it. In addition to the natural nervous tension we all experience throughout the day, some daily habits that result in physical and mental fatigue in people are also quite effective at creating a feeling of fatigue. Fatigue can be caused by unhealthy lifestyles such as excessive alcohol or

caffeine consumption, frequent disturbances in the sleep-wake cycle, and psychosocial stress or the delayed effects of traumatic events. The main reason for fatigue in healthy workers is exposure to long-term stress. Long working hours, busy daily work and not having enough fun and rest for a long time, doing housework and shift work, always sleeping late and waking up early, along with other external factors such as light and noise can be sources of fatigue (N. Jansen et al., 2003; Muecke, 2005) In nurses, fatigue is associated with factors, such as extensive working hours, intensive workload, increased stimulation like noise and performing multiple tasks (Pape et al., 2005), and shift work (P. G. Jansen et al., 1996). In addition, disruption of biological rhythms and insufficient rest and sleep, reduced control over working conditions (Bültmann et al., 2002), continuous exposure to conflicting roles at work (MacDonald et al. 2003), and lack of social support (Van der Ploeg & Kleber, 2003), have been reported.

1.4 Fatigue evaluation

Fatigue evaluation is a comprehensive process that involves a range of tests and evaluations to identify the underlying cause of fatigue. It's critical to consult with a healthcare provider if experiencing persistent fatigue, as it could be a sign of an underlying medical condition that needs to be addressed. Although individual symptoms of fatigue differ from person to person, they can generally be classified into two categories: physical symptoms and symptoms related to dysfunction. Physical symptoms include feeling tired, sleepy, irritability, depression, dizziness, loss of appetite, digestive problems, and susceptibility to illness. Symptoms related to dysfunction include slowing down of a person's reaction speed and rate of thinking, failure to respond to stimulants, changes in received information, impairment in reasoning and judgment, inability to concentrate, increase in memory errors due to forgetfulness, and decreased motivation. As well as the general appearance of a person, their speech, and their behavior, they can help identify this symptom. By examining and analyzing the symptoms, it may be possible to obtain clues to find the etiology. Chronic fatigue is often difficult to diagnose, so a flexible control program and system are essential. A history should be taken from the patient, including information such as the progression of fatigue and associated complaints, family history, occupational history, and the patient's medication history. Special attention should also be paid to habits, sleep, signs of depression, history of bleeding, thyroid disorders, exercise habits, proper functioning of the cardiovascular system, sexual history, risk factors for viral infections, and immune system deficiency. A physical examination may be performed to look for signs of an underlying medical condition that could be causing fatigue. Blood tests may be ordered to check for anemia, thyroid disorders, and other medical conditions that can cause fatigue. If the healthcare provider suspects that fatigue is related to sleep, they may recommend a sleep study to evaluate sleep quality and screen for sleep disorders. In cases where medical professionals suspect that fatigue is related to a mental health condition, they may recommend a psychological evaluation to screen for conditions such as depression or

anxiety. When the individual's job is physically or mentally demanding, the healthcare provider may evaluate the demands of the job and suggest modifications to reduce fatigue. It's important to identify the underlying cause of fatigue so that it can be properly treated. The treatment plan will depend on the root cause of fatigue and may include lifestyle changes, medications, or other interventions (Yancey & Thomas, 2012; Avellaneda Fernandez et al., 2009).

1.5 Recognizing the various types of fatigue

Here's a closer look at each type of fatigue. 1. Physical fatigue and mental fatigue: Physical fatigue is the feeling of tiredness or exhaustion that results from excessive exertion. This can occur after exercise or other physical activity or after prolonged periods of standing or sitting in the same position. Symptoms of physical fatigue can include muscle weakness, aches, and soreness, as well as difficulty with physical tasks and activities. Mental fatigue is the feeling of tiredness or exhaustion that results from mental exertion. This can occur after extended periods of concentration, such as studying or working on a mentally demanding project. Symptoms of mental fatigue can include difficulty concentrating, forgetfulness, and a decrease in cognitive function. Physical fatigue is relieved by reducing activity and increasing rest and sleep. These people are probably more energetic in the morning, but the low level of usual activities makes them tired. Physical fatigue is aggravated by activity and relieved by rest, which is the opposite of mental fatigue. Fatigue that lasts more than 4 months or is not fixed with rest is the reason for the existence of mental fatigue (Sundaram, 2006). 2. Distinguishing between acute and chronic fatigue: Acute fatigue is a temporary state of fatigue that is typically caused by a specific event or activity and is usually resolved with rest or sleep. This type of fatigue is a normal response to physical or mental exertion and is not usually a cause for concern. Chronic fatigue syndrome is a complex disorder that causes persistent fatigue that is not alleviated by rest. Other symptoms may include pain, headaches, and difficulty concentrating. In contrast to acute fatigue, chronic fatigue does not go away with rest and lasts for more than 6 months (Rosenthal et al., 2008). 3. Fatigue caused by depression: Fatigue is a common symptom of depression, and can be caused by changes in neurotransmitter levels and other physiological changes that occur in the brain in response to depression. This type of fatigue is not uniform. But it is almost always accompanied by other symptoms, including a persistently depressed mood with pessimism, cognitive changes, and psychotic disturbances. Fatigue people state that they are unable to perform certain activities due to a lack of energy or strength, while the description of a depressed patient is more general. For example, they mention that they are unable to do anything. Of course, fatigue can be considered a cause of depression and can also mimic the symptoms of depression. 4. Diagnosing fatigue from sleepiness: Sleep-related fatigue is caused by inadequate or poor-quality sleep. This can result from sleep disorders such as insomnia, sleep apnea, or restless leg syndrome. Sleepiness is a disturbance in the natural mechanism of awakening and is characterized by the desire to sleep. Sleepy people are

temporarily awakened by activity, while fatigue is exacerbated by activity. Drowsy persons feel better after a nap and a short sleep. However, fatigued Individuals complain of a lack of energy, mental fatigue, poor muscle endurance, delayed recovery after physical activity, and lack of restful sleep (Hossain et al., 2005). 5. Fatigue and chronic fatigue syndrome: Fatigue is the most common symptom of chronic fatigue syndrome. This is characterized by severe mental and physical exhaustion, which causes a 50% reduction in all activities of the affected person. According to research, people with chronic fatigue syndrome experience different types of fatigue compared to what normal people report. One of the main obstacles to the diagnosis and treatment of chronic fatigue syndrome is the definition of fatigue itself. Researchers have pointed out that subjective experiences of fatigue may also be different in people with this syndrome. 6. Medication-related fatigue: Certain medications, such as antihistamines, antidepressants, and muscle relaxants, can cause fatigue as a side effect. 7. Nutritional deficiencies: A lack of essential nutrients such as iron, B vitamins, and magnesium can cause fatigue and other symptoms. 8. Burnout: Burnout is a type of fatigue that is caused by chronic stress and overwork. It is commonly experienced by people in high-pressure jobs or caregiving roles, and can result in exhaustion, cynicism, and decreased productivity (Gielissen et al., 2007).

1.6 Fatigue in nurses

Nurse fatigue refers to a state of physical and mental exhaustion experienced by nurses due to the demands of their work. This can be caused by a variety of factors. Shift work and irregular schedules: Many nurses work long hours and rotate shifts, which can disrupt their sleep-wake cycles and lead to fatigue. Workload: Nurses are often responsible for performing physically demanding tasks and providing emotional support to patients and their families, which can contribute to fatigue. Lack of sleep: Nurses who work long hours and night shifts may struggle to get enough sleep, which can exacerbate fatigue. Stress: Nursing is a demanding and challenging field, and nurses often face high levels of stress on the job, which can contribute to fatigue. Chronic fatigue: Prolonged fatigue can lead to chronic fatigue syndrome, a condition characterized by persistent fatigue, poor concentration, and sleep disturbances (Cho et al., 2022).

The problem of fatigue among nurses is common, and according to the literature, fatigue can have significant negative effects on both nurses and their patients. Some of the effects of nurse fatigue include increased error rate: Fatigue impairs nurses' ability to think critically and make sound judgments, putting patients at risk. Smets believes that elevating the level of fatigue, especially from the mental aspect or lack of concentration, is associated with the occurrence of more mistakes (Smets et al., 1995). Fatigue impairs cognitive function and increases the likelihood of errors in decision-making, leading to medical errors and adverse events. Fatigue can reduce the ability to process information in dangerous situations as well as respond to dangerous situations. This is more critical in hospital jobs

due to their sensitive nature in terms of ensuring the health and life of patients. It creates significant disruption to the nurse's performance and it seriously affects the ability of nurses to effectively care for their patients (Perry et al., 2011; Raftopoulos et al., 2012). The nature of the nursing profession requires high attention and concentration when dealing with patients. As a result, it is usual that the level of mental abilities differs with the type and quality of medical error, in such a way that the decrease in concentration and attention leads to the transformation of a pseudo-error into an error or errors that have no noticeable impact on the patient. Things like prolonged hospitalization transfer to the intensive care unit, and increased turnover (Barker & Nussbaum, 2011). According to some studies, fatigue caused by long working hours has been shown to be related to mistakes recorded before surgery and also to the increased risk of medication errors (Gold et al., 1992; Warren & Tart, 2008). Reduced patient satisfaction: When nurses are fatigued, they may not be able to provide the same level of care and attention to patients, which can contribute to reduced patient satisfaction and compromise patient safety and quality of care (Gaba & Howard, 2002; Kim et al., 2015).

In addition to the professional implications of these errors and the threat to the patient's safety, fatigue also increases the risk of physical injuries for nurses. This includes musculoskeletal disorders and workplace accidents. Fatigue has been considered in terms of the influence it can have on the physical health of nurses. Studies have shown that back, shoulder, and neck musculoskeletal disorders and needlestick injuries are related to higher levels of fatigue (Kryssie Kunert, 2007; Smith et al., 2006; Swaen et al., 2003). Fatigue can also have a direct impact on the nurse's health and safety outside of their work environment in the form of accidents and driving accidents. In other words, fatigue can be considered a potential factor that increases the potential for human errors (Barker & Nussbaum, 2011; Saremi & Fallah, 2013). Moreover, many investigations have shown that higher levels of nurse fatigue are significantly associated with lower mental health status. Having too much fatigue can throw the physical and mental state of a nurse off balance and exacerbate their psychological disturbances because fatigue destroys their physical strength and energy. In fact, fatigue can make a nurse lose concentration and make them mentally tense (Johannessen et al., 2015). In research on nurses, Bazazan et al showed that fatigue in nurses is related to their psychological problems and can increase emotional tensions by diminishing their quality of life (Bazazan et al., 2019). As a result, fatigue might lead to decreased morale and motivation, which can impact the overall work environment.

Decreased job satisfaction: Fatigue can lead to burnout and decreased job satisfaction, which can negatively impact the quality of care provided by the nurse. Nurse fatigue is a factor in job dissatisfaction and the decision to leave the profession. Nurses often complain about overwork, job stress, exhaustion, and a lack of free time. Feeling fatigued causes apathy and discouragement at work. In this way, when the nurse enters her work environment, which she is not very interested in, she does not feel relaxed mentally and psychologically. This can expose her to more psychological problems. These problems can

result in inappropriate behavior, illness-related absences from work, a desire to move, resignation, and leaving the job. This is why in the treatment system, organizational outcomes for nurse retention, related to organizational costs and labor, is very significant (Liu et al., 2016; Søbstad et al., 2021; Tei-Tominaga, 2013).

Some additional effects of nurse fatigue include decreased efficiency: Fatigue can lead to decreased efficiency, longer work hours, and more stress, which can contribute to burnout. Reduced immune function: Chronic fatigue can impair the immune system, increasing the risk of illness and absenteeism among nurses. Increased stress: Fatigue may be a factor in increasing stress, which can have detrimental effects on one's physical and mental well-being as well as job performance. Poor quality of life: When fatigue becomes chronic, it can negatively impact the overall quality of life of the nurse, leading to diminished physical and mental well-being. Decreased empathy and compassion: Being too tired to care for patients might make it difficult for nurses to connect with them and give them sympathetic care, which lowers patient satisfaction (Cho & Steege, 2021).

Finally, nurse fatigue has a significant impact on a nurse's overall life satisfaction. Some of the ways in which fatigue can affect life satisfaction among nurses include lowered job satisfaction: Fatigue can contribute to burnout and reduced job satisfaction, which can negatively influence nurses' general sense of fulfillment and satisfaction with their careers. Fatigue reduces the amount of leisure time available to nurses, impacting their ability to pursue hobbies and interests outside of work. Fatigue often contributes to increased stress, which can adversely affect nurses' overall quality of life and well-being. Fatigue equates to poor sleep quality, which might hinder a nurse's ability to recharge and feel refreshed. As well, chronic fatigue can lead to decreased physical health, which influences a nurse's general wellness and sense of fulfillment. Fatigue also damages a nurse's mental health, potentially contributing to decreased mood, increased anxiety, and diminished life satisfaction. Additionally, fatigue tends to affect a nurse's ability to maintain personal relationships, such as with friends and family, ultimately contributing to a loss of social support and life satisfaction. Increased financial strain: Fatigue causes lowered efficiency and productivity, which can affect a nurse's financial stability and overall life satisfaction. Lack of sense of accomplishment: Fatigue reduces a nurse's ability to feel a sense of accomplishment and fulfillment in their work, and as a result, overall life satisfaction. Decreased physical activity: Fatigue reduces a nurse's motivation and energy levels, leading to less physical activity and a sedentary lifestyle, which can negatively interfere with one's health and life satisfaction. Decreased mental clarity: Fatigue interferes with cognitive function, leading to impaired mental clarity and problem-solving abilities, which can impact life satisfaction. Lack of sense of control: Fatigue can make it difficult for nurses to manage their workload and priorities, adding to a loss of sense of control and increased stress, which can impact life satisfaction. In conclusion, fatigue might have a significant impact on the life satisfaction of nurses (Demerouti et al., 2000; Ferri et al., 2016).

It's imperative for healthcare organizations to recognize the impact of fatigue and take steps to mitigate it. To address nurse fatigue, hospitals may implement a variety of strategies, such as providing rest breaks, reducing workload demands, offering flexible work schedules, promoting a healthy work-life balance, ensuring adequate staffing, and encouraging self-care and stress management practices. By doing so, institutions that provide medical care can help their nurses maintain their overall well-being and life satisfaction. In addition, nursing institutions may deliver education and training on fatigue management and offer support services for nurses who are experiencing fatigue or burnout. As a whole, managing nurse fatigue is essential for ensuring the health and safety of both patients and nurses. It also promotes a healthy and productive work environment in the healthcare system.

CHAPTER 2:
Life Satisfaction

2.1 Conceptualization of life satisfaction

One of the categories of positive psychology is life satisfaction and happiness. In 1999, Seligman said that the goals of positive psychology have helped people become stronger and socialize values. He also suggested that the field of psychology should focus more on promoting the flourishing of positivity (Seligman, 1999). Life satisfaction, as the main dimension of mental well-being, is one of the most important indicators of mental health. Theory and research in the field of well-being have shown that well-being has three components: evaluation of pleasant emotions, evaluation of negative emotions, and satisfaction with life. Life satisfaction differs from affective evaluation because it is more cognitive (Robbins, 2008).

Life satisfaction is evaluated according to the evaluation of a person's satisfaction with life. It is a state of mind like happiness to be satisfied with life, to feel that our lives are heading in the right direction. This is a special feeling of happiness that is valuable and very desirable, but it is difficult to get. In addition, life satisfaction is associated with the meaningfulness of life. Meaningfulness of life is a valuable concept that is rarely used. Those who seek to find meaning in life find themselves in a confusing situation where all aspects of life seem completely different (Wong & Law, 2002). Also, life satisfaction is an indicator that entered the field of social sciences relatively late, although it was raised with the concept of quality of life and in response to economic measurements, it quickly became an independent and significant field. Contrary to what is often thought, the importance of this index is not due to its immediate political effect. The concept of life satisfaction is a comprehensive and stable measure and reflects the general perception and opinions of people in a country towards the world in which they live. The importance of this is also based on its implications for social stability. While political satisfaction has a transitory and temporary aspect and mostly measures the attitude of people toward the current conditions of the day. This is the concept of life satisfaction that is taken into consideration when planning the quality of life (Rush, 2014).

Overall satisfaction with life is a combination of individual and social conditions and a sign of a positive attitude toward the world and the environment in which we live. Despite the variety of theoretical approaches to the concept of life satisfaction, it seems that there are two main approaches: the structural approach and the holistic approach. According to a structural approach to life satisfaction, life satisfaction is a structure with several dimensions, including self-satisfaction, family satisfaction, and job satisfaction. In the holistic approach, in this view, satisfaction with life has no dimension. Instead, it is presented as a general assessment of the quality of a person's life in the past, present, and future. Therefore, life satisfaction reflects a person's level of awareness of health and well-being, cognitive and emotional evaluation of the quality of life in general, or the evaluation of some aspects of life such as family life, work, academic life, etc. It seems that the generality of the concept of life satisfaction and its abstractness has given it unique characteristics. In other words, if the

goal is to improve an individual's satisfaction in any area of life, it should not only try to meet the individual's needs in the same area, but we should also pay attention to the individual's overall satisfaction with life (Anand & Arora, 2009; Diener et al., 1985; Zhao et al., 2020).

Ryff (1989) defines life satisfaction as including six aspects: self-acceptance (awareness of one's positive and negative points and self-respect), having a purpose in life (by having a goal in life, people can endure and resist hardships and sufferings), personal growth (blooming of all talents and abilities of a person), mastery of the environment (it means that a person has control over his environment), autonomy (a person acts and lives based on his own standards, beliefs, and ideals, although it is contrary to common beliefs in society) and positive relationships with others (the ability to communicate closely with others and love people) (Ryff, 1989). Felce and Perry (1996) consider life satisfaction as a pleasant feeling, which includes an observable and internal evaluation of material, physical, and social satisfying feelings as determined by an individual's set of values (Felce & Perry, 1996). In the definition of life satisfaction, Kemp et al say satisfaction refers to cognitive and judgmental experience, which is defined as the perceived difference between desire and progress in life, that is, the fulfillment of desire (Kemp et al. 1997). According to (Sousa & Lyubomirsky, 2001), life satisfaction is the difference between what a person wants and what actual circumstances provide them with. In fact, these two have proposed a difference between reality and ideal. Pavot and Diener's definition of life satisfaction from 2008, people judge the quality of their lives using a set of predetermined standards (Pavot & Diener, 2008). Yilmaz and Arslan state that life satisfaction is having a pleasant feeling after evaluating the outcomes of the activities and work you have done (Yılmaz & Arslan, 2013). Inglehart (2018) explains that life satisfaction is a reflection of the balance between personal desires and an individual's objective circumstances. In other words, the more the gap between the level of a person's wishes and their objective situation increases, their satisfaction will drop, but the levels of individual wishes will gradually adapt to their situation. The World Health Organization defines life satisfaction as an individual's assessment of the quality of their lives in light of their culture and values. This view is based on how these impressions relate to the person's priorities, goals, standards, expectations, and aspirations.

2.2 Factors affecting life satisfaction

2.2.1 Genes

Research has found that a portion of individual differences in life satisfaction can be attributed to genetic factors. The role of genes is revealed by studying twins. The study of twins has shown that identical twins experience a similar level of well-being. These results also hold when twins are reared apart. The researchers' interpretation of these findings is that 40 to 50 percent of people's well-being is hereditary (Donovan & Halpern, 2002). Also,

serotonin and dopamine levels in the brain are correlated with people's happiness. One way genes can influence life satisfaction is through the neurotransmitters and hormones that they regulate. For example, genes that are involved in the production and regulation of dopamine, a neurotransmitter associated with pleasure and reward, may influence an individual's level of life satisfaction. Additionally, some genes may be linked to certain personality traits, such as optimism or resilience, which in turn can affect life satisfaction. For example, the serotonin transporter gene has been found to be associated with both neuroticism and life satisfaction. It is imperative to note, however, that genes are not the only factor that determines life satisfaction. Environmental factors, such as social support, economic status, and life experiences, can also play a significant role. Furthermore, it is important to remember that genetic factors are not deterministic. This means that having certain genetic makeup does not necessarily mean that an individual will have a certain level of life satisfaction. Rather, genes may influence an individual's predisposition to certain traits or behaviors, which can in turn influence their life satisfaction. Ultimately, life satisfaction is a complex and multi-faceted construct that is influenced by a variety of factors (Røysamb et al., 2018).

2.2.2 Personality

Some people seem to be happier than others, and their personality or combination of talents reflects that happiness. Personality can play a significant role in life satisfaction. Studies have found that certain personality traits, such as self-confidence, optimism, self-esteem, sociability, the ability to organize and plan, resilience, and extraversion, are associated with higher levels of life satisfaction. In contrast, other traits, such as neuroticism and introversion, are associated with lower levels of life satisfaction. Optimistic individuals tend to have a positive outlook on life and believe that things will work out for the best. They are more likely to focus on the positive aspects of a situation, which can lead to greater life satisfaction. Resilient individuals are able to bounce back from setbacks and adapt to change. They are more likely to see challenges as opportunities for growth and learning, which can also contribute to greater life satisfaction. Extraverted individuals tend to enjoy social interactions and are energized by being around others. They often have strong social networks and may derive a sense of satisfaction from these relationships. On the other hand, individuals who score high in neuroticism may be more prone to negative emotions such as anxiety and worry. This can lead to a more pessimistic outlook on life and lower levels of life satisfaction. Introverted individuals may be more introspective and may prefer spending time alone rather than being in social situations. While this is not necessarily a negative trait, it can be associated with lower levels of life satisfaction if an individual is not fulfilled by their social interactions (Argyle et al., 1999). A study has shown that personality factors have a stronger effect on positive and negative emotions and life satisfaction than situational factors (Diener et al., 1999). Overall, personality can influence an individual's perceptions of their life circumstances, and therefore, impact their level of life satisfaction. However, it is

imperative to note that personality is just one factor among many that can contribute to life satisfaction. Individual circumstances and experiences also play a significant role.

2.2.3 Physical and wellness characteristics

In many surveys, health is one of the most influential aspects of life satisfaction. When an individual is healthy, they are more likely to feel happy, energetic, and able to engage in activities that they enjoy. On the other hand, poor health can lead to chronic pain, fatigue, and a sense of helplessness, which can negatively impact life satisfaction. How individuals perceive their bodies can significantly impact their self-esteem and overall life satisfaction. Negative body image can lead to feelings of shame, social isolation, and a decreased sense of self-worth, while positive body image can boost confidence and self-esteem. Although this is conditioned by culture, in the West physical attractiveness among women is linked to high life satisfaction. While being tall among men is related to a high level of life satisfaction (Argyle et al., 1999). In a survey of accident victims, researchers found that their level of satisfaction with life had decreased significantly. However, the impact of short-term events is more profound than long-term outcomes, as people adapt to their changed health status and find compatible peer groups (Donovan et al., 2002).

2.2.4 Age and Gender

Age and gender can also be influential factors that influence life satisfaction. In terms of age, research has found that life satisfaction tends to follow a U-shaped curve over the lifespan. This means that life satisfaction tends to be greatest in early adulthood, declines in middle age, and then increases again in later life. This pattern has been observed in many different countries and cultures, although there are individual differences and variations. One possible explanation for the U-shaped curve is that younger adults have a tendency to have strong expectations and optimism about their future, while middle-aged adults may face more stress and responsibilities related to work, family, and finances. In contrast, older adults may experience a greater sense of acceptance, gratitude, and fulfillment, which can contribute to higher life satisfaction. By examining different samples of people, researchers have found that the level of life satisfaction is high among people under the age of 25 and gradually decreases in the middle-aged between 45 and 55 years old and increases again in the last years of life (Diener et al., 1999). In general, it seems that the level of life satisfaction is greater among women than among men. For example, in a survey conducted in 16 countries over 6 years, researchers discovered that 24 percent of women were much happier than 21 percent of men. Research has found that there are some gender differences in life satisfaction. This gender gap varies across countries and cultures, and there is no single explanation for it. However, some possible factors that may contribute to the gender difference in life satisfaction include social and economic inequality, caregiving responsibilities, gender roles, and expectations. It's critical to note that these factors are

complex and interact in many different ways and that there is significant individual variability within each gender group (Donovan et al., 2002).

2.2.5 Job factors and Education

Research has shown that both job factors and education are substantial predictors of life satisfaction. While a job can make a person satisfied with life, on the other hand, unemployment causes stress and dissatisfaction with personal life. Unemployment has a significant effect on a person's life satisfaction. People without jobs are more frustrated and unhappy with their lives than other individuals. Unemployment reduces the life satisfaction of all sections of society. This may be because high rates of joblessness increase feelings of job insecurity. Job factors such as job security, financial autonomy, and social support are positively associated with life satisfaction. For example, employees who feel secure in their job and have control over their work tend to report higher levels of life satisfaction. Additionally, social support from colleagues and supervisors can contribute to greater life satisfaction (Nickerson et al., 2003). Based on an examination of the relationship between income and life satisfaction, the results have shown that the association between income and life satisfaction is positive and statistically significant. Other statistical analyses of these relationships show that these connections are coincidental, for example, that income leads to happiness, and the reverse is not true (Gardner & Oswald, 2001). Some studies have found that the significant connection between happiness and income is visible only in the lower strata of society. This is because there is no such link between rich nations and countries that have a higher income than poorer countries (Argyle et al., 1999).

In various studies, a slight correlation between education and life satisfaction has been discovered. Individuals with higher levels of education tend to have greater opportunities for employment, higher incomes, and better health outcomes, which can all contribute to greater life satisfaction. Furthermore, education can provide individuals with the skills and knowledge needed to pursue work that aligns with their values and interests, which can also contribute to higher levels of life satisfaction. The results of other studies in this field have shown that those with advanced education have fewer psychosomatic symptoms than those with an average education. However, gradual changes are stressful for them. But, the score of life satisfaction and job fulfillment, in general, is low for most educated individuals. Although education boosts economic profit, it is linked to a poor degree of life satisfaction. Apparently, education causes an increase in basic salary, which in turn raises job satisfaction, but this factor reduces happiness in the long run (Gardner & Oswald, 2001).

2.2.6 Religion

Religion has been found to have a positive correlation with life satisfaction in many studies. While the relationship is complex and multifaceted, religion is thought to provide individuals with a sense of meaning and purpose in life by giving a framework for

understanding their place in the world and purpose in it. This can contribute to a heightened sense of life satisfaction and well-being. Religious communities often afford individuals a sense of belonging and social support, which can be an influential factor in promoting life satisfaction. Being part of a community that shares similar values and beliefs can also contribute to a greater sense of connection and fulfillment. Religion can provide individuals with coping mechanisms to deal with stress and adversity, such as prayer, meditation, and other forms of spiritual practice. These coping mechanisms can be helpful in promoting resilience and well-being and can also lead to enhanced life satisfaction. However, it's imperative to note that this relationship is not universal and that individuals may have different experiences with religion depending on their personal beliefs and experiences. Research conducted on followers of Christianity shows a high correlation between the rate of satisfaction with life and religious beliefs. Also, strong spiritual connections and godliness, prayers, and such concepts indicate deep religious beliefs and have a notable impact on life satisfaction (Diener et al., 1999). Fabricatore (2012) found in his study that spirituality affects overall life satisfaction. His results show that personal spirituality is a reliable predictor of elevated life satisfaction. In addition, it can serve as an adaptation mechanism that helps people cope with stressors more effectively than those with a lower level of personal spirituality (Friedman & MacDonald, 2002). In another study, Nasel (2004) also showed that religious dimensions are related to higher life satisfaction and that religious people are happier in religious communities.

2.2.7 Social factors and Relationships

Social factors affect people's feelings of satisfaction with their lives. According to research conducted, a lower level of life satisfaction indicates a higher level of social isolation. Similarly, life satisfaction plays a vital role in sustaining the societal system. Some social characteristics such as trust, human relations, and social solidarity were proposed under the title of social capital. So that each of these concepts is related to the characteristics of life satisfaction and is considered an influential source of life satisfaction. Social capital refers to the resources that a person can access due to his presence in a group. This group can be as big as a nation or as small as a family. The resource can be tangible and objective or intangible such as social support or cooperation. The most prominent indicators that can be listed for social capital are loyalty, trust, individual authority, organizational identity, and societal norms. Together, these variables form a purposeful system and help a person to achieve valuable goals. Considering what has been said, it appears that social factors can strengthen or weaken life satisfaction and affect people's performance. The existence of groups and group relations is a source of happiness. It appears that activities performed in leisure time improve well-being. Because they enable people to psychologically unwind. As well, exercising, civic participation, and religious affiliations can all be advantageous. In actuality, the basic issue in the field of life satisfaction is that it is highly related to social interactions. Additionally, positive social interactions such as feeling cared for and valued by others can provide individuals with emotional support, and lead to increased feelings of

pleasure and contentment. Having friends, supportive relationships, and colleagues all affect our happiness and satisfaction. On the other hand, negative or unsatisfying relationships can have a detrimental effect on life satisfaction. For example, individuals who are in abusive or conflict-ridden relationships tend to report lower levels of life satisfaction and have a higher risk of mental health problems. It's worth noting that the quality of relationships is more consequential than the number of relationships when it comes to life satisfaction. Having a few close and meaningful relationships tends to be more beneficial than having many superficial or unsatisfying relationships (Palmore & Luikart, 1972; Barger et al., 2009).

2.2.8 Freedom and democracy

Freedom and democracy can play a significant role in an individual's life satisfaction. Freedom allows individuals to make choices that align with their values, interests, and goals, leading to a sense of autonomy and control over their lives. Autonomy can be a source of happiness and fulfillment, as persons feel empowered to pursue their aspirations and express their unique identities. The significance of democracy and political liberties is further demonstrated by research on life satisfaction measures in developed nations. According to research among Swiss residents, the country has a high degree of democracy and its citizens report a high level of life satisfaction. Participating in a referendum is an example of democracy. A democratic society is one that upholds basic human rights, such as freedom of speech, religion, and assembly. The protection of these rights can lead to a sense of safety and security, as individuals feel that they can express themselves without fear of retaliation (Donovan et al., 2002). Additionally, the political freedom index and life satisfaction have a close relationship. A society that values freedom can offer individuals the opportunity to pursue their goals and aspirations, while also providing a sense of safety and security. The majority of studies on the connection between democratic and economic liberties admit that there is a strong correlation between political freedom and life satisfaction in wealthy nations. It seems that in developing nations, financial liberty has a big impact on how happy people are with their lives. However, wealthy regions do not have these kinds of relations. Economic freedom in less developed countries causes more happiness than in more developed countries (Veenhoven, 1999).

2.3 Dimensions of life satisfaction

In accordance with the definition of life satisfaction, it consists of the three principles of physical, mental, and social health. Physical dimension: a person's understanding of his abilities in performing daily activities and tasks that require energy and includes things such as stimulation, energy, pain and discomfort, sleep, and rest. One significant physical dimension of life satisfaction is health. When individuals are in good health, they tend to feel more satisfied with their lives. This is because pristine health allows individuals to engage in activities they enjoy, have more energy, and feel less limited by physical challenges. Conversely, poor health can be a major source of stress and dissatisfaction. Other physical

factors that can influence life satisfaction include access to basic needs such as food, shelter, and safety. Having a comfortable and secure living environment can provide a sense of stability and well-being (Grant et al., 2009). Psychological dimension: This dimension includes mental aspects such as anger, happiness, depression, fear, and peace, as well as things such as self-image, positive and negative feelings, religious beliefs, memory, and concentration. Some key psychological factors that can impact life satisfaction include high self-esteem, which makes people feel more confident about themselves and their lives, and are apt to experience higher levels of life satisfaction. Optimism, or a positive outlook on life, is also associated with greater life satisfaction. Optimistic individuals tend to focus on the positive aspects of their lives and are better able to cope with setbacks. As well, people who are more resilient tend to be better able to handle stress and adversity, and are better able to maintain high levels of life satisfaction. Resilience refers to an individual's ability to bounce back from difficult experiences. Having a sense of purpose or meaning in life, too, contributes to a greater sense of life satisfaction. This may involve setting and achieving goals, pursuing hobbies or interests, or contributing to a worthwhile cause. In general, the psychological dimension of life satisfaction is closely linked to an individual's thoughts, emotions. It can be shaped by a variety of factors throughout the lifespan. Social dimension: This dimension refers to a person's ability to communicate with family members, friends, neighbors, and other community members. Social relationships can be a key source of support, meaning, and fulfillment, and can have a significant impact on an individual's quality of life. Having strong social support, such as close relationships with family and friends, can help individuals cope with stress, provide a sense of belonging, and contribute to overall life satisfaction. Feeling connected to a community or social group also provides individuals with a sense of belonging and purpose, which can contribute to a greater sense of life satisfaction. Comparing oneself to others can have a significant impact on life satisfaction. While comparing oneself to those who are perceived to be better off can lead to feelings of inadequacy and lower life satisfaction, comparing oneself to those who are worse off can lead to an increased sense of gratitude and higher life satisfaction. Furthermore, social norms and values can influence an individual's sense of identity, purpose, and belonging. Aligning with the values of one's social group or community can be beneficial to one's sense of life satisfaction. In addition, engaging in group activities, such as volunteering, participating in group hobbies or sports, or attending community events, can provide individuals with a sense of connection and purpose. This can help their quality of happiness in life. Overall, the social dimension of life satisfaction highlights the importance of interpersonal connections and relationships in contributing to overall well-being and happiness (Hörnquist et al. 1995; Fernández-Ballesteros et al., 2001).

2.4 Patterns of life satisfaction

In general, life satisfaction can be examined according to two models: adaptive function and life satisfaction. Life satisfaction is defined in terms of adaptive function,

through the control that a person has over the environment, which refers to an individual's ability to effectively manage the challenges and stressors of daily life. Life satisfaction has a positive correlation with a person's ability to master the environment. Essentially, the more control a person has over his life, the more satisfied he will feel with his life. This model is proposed based on the hypothesis of self-actualization, although it should be noted that the environment plays an imperative role here. This function involves a variety of psychological and behavioral factors, including cognitive flexibility, emotional regulation, problem-solving skills, and social support. When individuals have high levels of life satisfaction, they tend to have greater resilience, which allows them to cope more effectively with stressors and challenges. This may involve adopting positive coping strategies, seeking out social support, engaging in activities that provide a sense of purpose or fulfillment, or finding meaning in difficult experiences. A person's adaptive function can also be viewed in terms of an individual's ability to balance demands and priorities, such as work and family responsibilities. When individuals can effectively manage these demands and maintain a sense of balance in their lives, they are more likely to experience higher levels of life satisfaction. The concept of adaptive function highlights the importance of psychological and behavioral factors in contributing to life satisfaction. It underscores the need for individuals to develop effective coping strategies and social support networks to help manage the challenges of daily life (Gilman & Huebner, 2006).

According to the life satisfaction model, the evaluation of the concept of life satisfaction is based on comparing objective conditions with the subjective perception of these situations. Objective conditions refer to external circumstances such as income, health, and social status, while subjective perceptions refer to an individual's subjective experiences, thoughts, and feelings about their life. In many cases, there may be a mismatch between objective conditions and subjective perceptions. For example, an individual may have a high income and good health, but they may still feel unhappy and dissatisfied with their life. However, another individual with a lower income and health may feel content and satisfied with their life. Research suggests that subjective perceptions are often more influential than objective conditions when it comes to evaluating life satisfaction. In other words, it is not just external circumstances that determine life satisfaction, but also an individual's interpretation of those circumstances. This is because individuals have different needs, preferences, and values, which can impact their perceptions of their life circumstances. For example, an individual who values social relationships highly may place more emphasis on their social connections than on their income or job status when evaluating life satisfaction. As a result, evaluating life satisfaction requires taking into account both objective conditions and subjective perceptions. While objective conditions can provide substantial information about an individual's life circumstances, subjective perceptions are often more relevant when it comes to understanding an individual's sense of well-being and happiness. Researchers have relied on three theoretical sources to describe the difference between what is and what ought to be. Adaptation theory model: It is indicative of the process by which a person's internal assessment alters in response to changes in environmental conditions. Person-

environment model: It claims that life satisfaction is contingent on the fit between personal characteristics and environmental factors. Social judgment model: It is predicated on the assumption that a person uses modern standards to evaluate his situation. In any event, life satisfaction is an active and multifaceted flow of perceptions, attitudes, and behavioral changes that result from various experiences that occur throughout life. As a whole, the life satisfaction model suggests that life satisfaction is a complex and multifaceted construct that is influenced by a variety of factors. By understanding and addressing these different factors, individuals can work to improve their overall sense of well-being and happiness (Pavot & Diener, 2008).

2.5 Theories about life satisfaction

Any scientific and experimental investigation of the factors related to the subject of life satisfaction without considering the principles of connected theories in the fields of sociology, social psychology, and psychology will be incomplete and insufficient. On the other hand, explaining the elements affecting life satisfaction as part of an overall picture requires the study of all social, psychological, cultural, and economic, as well as material factors and variables, in mutual relationship with each other. Since various theories present us with different perspectives, whereas each of these perspectives differs from another, looking at factors affecting life satisfaction from different perspectives can lead us to uncover new aspects of the issue. In general, three types of life satisfaction can be separated from each other. Satisfaction is caused by having, satisfaction is caused by communication, and satisfaction is caused by being. The satisfaction gained by having more depends on the facilities and the degree of convenience. The theories that explain the economic factors affecting life satisfaction are related to the first type of life satisfaction. Satisfaction resulting from communication is related to interpersonal satisfaction. Social relationships in terms of type, intensity, and emotional conflict affect satisfaction with life. The theories that explain social factors impacting life satisfaction are connected to the second type of life satisfaction. When evaluating the quality of our lives, we consider the satisfaction of being. This satisfaction is more related to the feeling of control over one's life, as opposed to the feeling that our lives are controlled by forces outside of us. This is the problem that sociologists refer to as alienation, and finally, theories that explain psychological and economic factors affecting life satisfaction are included in this category (McIntosh, 2001).

Zhan's theory of life satisfaction, also known as the Multiple Discrepancies Theory, suggests that an individual's satisfaction with their life is based on the degree of discrepancy between their current situation and their desired situation across multiple domains of life. The theory proposes that life satisfaction is influenced by four types of discrepancies: 1. Actual-ideal discrepancy: the difference between an individual's actual situation and their ideal situation. For example, if an individual desires a job with a higher salary but is currently in a lower-paying job, this may result in an actual-ideal discrepancy. 2. Actual-

ought discrepancy: the difference between an individual's actual situation and what they believe they ought to be doing or achieving. For example, if an individual feels that they ought to be pursuing a certain career path but is currently in a different field, this may create an actual-ought discrepancy. 3. Ideal-ought discrepancy: the difference between an individual's ideal situation and what they think they ought to be doing or achieving. For example, if an individual desires a particular lifestyle but feels that they ought to be saving money, this may lead to an ideal-ought discrepancy. 4. Expected-actual discrepancy: the difference between an individual's expectations and their actual situation. For example, if an individual expected a certain level of success in their career but has not achieved it, this may create an expected-actual discrepancy. According to Zhan's theory, an individual's overall life satisfaction is determined by the combined effect of these discrepancies across multiple domains, such as work, family, relationships, and leisure. The theory suggests that individuals who experience a large number of discrepancies across multiple domains are more likely to have lower life satisfaction. In contrast, those who experience fewer discrepancies are more likely to have higher life satisfaction. Zhan's theory highlights the importance of identifying and addressing the sources of dissatisfaction in an individual's life. By reducing the discrepancies between an individual's current situation and their desired situation, it may be possible to improve their overall life (Zhan, 1992).

Ventegodt et al. (2003) state that people's opinions about a good life can be observed subjectively to objectively, which creates a range of attractive theories of life satisfaction. The spectrum mentioned above is called the general theory of life satisfaction. The general theory of life satisfaction is a comprehensive theory on the subjective-existential-objective spectrum and life satisfaction means how much a person feels that they live a good life. Existential quality of life refers to how meaningful a person's life is at a deeper level. Here it is assumed that a person has a deeper nature and deserves to be respected. This is because they deserve to live according to certain spiritual and religious ideals that are intertwined with the nature of their life. Objective quality of life: it means how a person's life is perceived by the outside world. This view is influenced by the culture in which people live (Ventegodt et al., 2003).

2.6 The importance of life satisfaction

The feeling of satisfaction with life, on the one hand, as a valuable and enjoyable sense, has inherent utility. Furthermore, on the other hand, it is a capital that makes the use of other gifts of life more pleasant. At the same time, it can be used to solve or make problems more bearable. For this reason, creating, continuing, and improving the feeling of life satisfaction for people who want a valuable and meaningful life, or in other words, a complete life, seems an undeniable necessity. Regarding the importance of the subject under study, it should be noted that man is a purposeful being and is always looking for an evaluation of life situations and will not feel satisfied until he achieves what he wants. It may

be safe to say that the ultimate hope of every human being is the realization of his goals and dreams. Purposes and aspirations are largely determined by the conditions that a person achieves in interaction with others. Therefore, today, every developed society thinks about the satisfaction of its citizens, since life satisfaction has a high correlation with social and economic development (Diener et al., 2013).

Life satisfaction is an essential element of order, harmony, and social cohesion. It is imperative to pay attention to it because it is possible to study and evaluate many social elements while knowing the psychological conditions of society. It should be noted that dissatisfaction in people's lives is a problem for any political system. Its continuation and expansion have caused people's commitment to the value system and their trust in other members of society to diminish. This may be the source of many societal changes. Although a person's positive feelings are subjective, they are based on objective statuses. To understand the constructive and unfavorable evaluations of people, we must note that their mental analyses and assessments of their own and society's conditions in comparison to others constitute the main component of both positive and negative evaluations. If a person's evaluation of their situation or life is negative, this disagreeable sensation affects not just their identity but also many manners and attitudes toward their state and social standing. In this regard, if a person's life satisfaction decreases, it may negatively affect his ability to perform in a work environment as well as his economic and social status. A lack of life satisfaction can also cause people to use inefficient coping and adaptation mechanisms, leading to increased tension. This is directly related to physical and psychological factors and can enhance the severity of the disease in a person. As a result, life satisfaction is a multidimensional and complex concept and structure that must be evaluated from different angles (Mendoza & Napoli, 1995).

According to Myers and Diener (1995), people who are satisfied with their lives experience greater physical and mental health. In contrast, a lack of life satisfaction is associated with unsatisfactory health status, depression symptoms, personality problems, inappropriate health behaviors, and poor social status (Myers & Diener, 1995). Gongora and Solano (20014) demonstrated a significant link between life satisfaction and well-being (Gongora & Castro Solano, 2014). The findings of Cohen et al.'s study also demonstrated that there is a substantial association between positive emotions and enhanced life satisfaction. Positive emotions create sustainable sources of happiness. Happy people have increased life satisfaction due to developing initiatives for better living (Cohn et al., 2009). In summary, the results of (Erikson & Vinson 20012); Bourne et al.'s research (Bourne et al., 2010); Cohen and colleagues (Cohn et al., 2009); Singh and Shalimi (Singh & Jha, 2008); Myers and Diener (Myers & Diener, 1995) show the important role of life satisfaction in happiness and the positive relationship between them.

Examining life satisfaction in health care systems is also crucial since, according to studies, this topic has a special connection with health. Several studies have shown that life

satisfaction is related to high levels of mental health. This is because the higher the area of life satisfaction, the more positive feelings and emotions a person will experience and the fewer negative feelings they experience and have a positive evaluation even of stressful events and have less depression and stress (Myers & Diener, 1995; Ulker, 2008). The results of various studies indicate a broad relationship between life satisfaction and psychological behaviors and states, including self-esteem, hope, and the absence of psychological diseases (Diener et al., 1999). Life satisfaction is considered a clear sign of a person's successful adaptation to changes in various life situations. People with high life satisfaction are more resilient to stressful life events. They solve problems more effectively and experience significantly less conflict between their personal life, work, and job stressors. In addition, it predicts a person's ability to perform better in life and social roles such as academic success, work, and professional conditions (Baird et al., 2010; Linn et al., 1986; Matheny et al., 2002; Öztürk & Karabulutlu, 2021).

2.7 Life satisfaction in nurses

Nurses play a crucial role in the healthcare system, and life satisfaction is crucial for their well-being and the quality of care they provide to patients. Life satisfaction in nurses refers to a nurse's overall sense of happiness and satisfaction in their life, including their personal and professional experiences. It is a multifaceted and intricate construct that includes a variety of emotional, psychological, and physical elements. In an investigation titled predictors of life satisfaction of Korean nurses in 2004, Lee et al., with a survey of 194 Korean nurses, reported moderate levels of life satisfaction, low levels of job satisfaction, and high levels of job burnout. The conclusion of this study highlights the relative importance of negative work outcomes on nurses' overall well-being (Lee et al., 2004).

In the context of nursing, life satisfaction can be influenced by a number of work-related factors, such as job stress, workload, pay and benefits, support from colleagues and superiors, and a positive work-life balance. It can also be impacted by personal factors such as health, relationships, and outside interests and activities. Nursing can be a physically and emotionally demanding profession, and many nurses report high levels of job stress and burnout. This can lead to decreased life satisfaction and an increased risk of depression and other mental health issues. In addition to job stress, other factors that can impact life satisfaction for nurses include long hours, challenging working conditions, and exposure to illness and trauma (Itzhaki et al., 2015). It is imperative to note that life satisfaction can vary greatly from person to person, and can change over time based on life events and circumstances. For example, a nurse who is experiencing job stress or burnout may report lower levels of life satisfaction, while a nurse who has a positive work-life balance and feels supported in their work, and has a positive work environment often reports higher levels of life satisfaction. It is also important to recognize that life satisfaction is not a static concept and can be improved through proactive steps and interventions. For example, a nurse who is

struggling with job stress may benefit from stress management techniques, such as exercise, mindfulness, or counseling. Life satisfaction among nurses can be measured through various self-reported surveys and questionnaires, which ask individuals to rate their level of satisfaction with different aspects of their life. These assessments can provide valuable insights into the factors that contribute to or detract from a nurse's overall sense of life satisfaction (Nemcek & James, 2007).

The importance of life satisfaction for nurses is indisputable. Evaluating life satisfaction in health care systems is crucial since, according to studies, life satisfaction, and both physical and mental health are closely related (Meléndez et al., 2009). A nurse's overall sense of happiness and fulfillment has a significant impact on their personal and professional lives. This has profound implications for the quality of care they provide to patients. For example, nurses who experience high levels of life satisfaction tend to be more engaged, motivated, and productive in their work. They are also more likely to provide compassionate and effective care to patients, which can lead to better health outcomes and patient satisfaction. On the other hand, nurses who experience low levels of life satisfaction may struggle with burnout, absenteeism, and a decreased commitment to their work, which can impact the quality of care they deliver. In addition, life satisfaction among nurses is also an influential factor in promoting their overall well-being and health. Nurses who are happy and fulfilled in their personal and professional lives are more likely to experience positive physical health. As a result, it can lead to increased resilience and job satisfaction over the long term. Moreover, promoting life satisfaction among nurses can also benefit healthcare organizations. By supporting their nursing staff and creating a positive work environment, organizations can reduce turnover, absenteeism, and the costs associated with employee burnout. This can lead to improved patient outcomes, increased productivity, and a more positive organizational culture (Kołtuniuk et al., 2021). In conclusion, life satisfaction for nurses is a critical aspect of their well-being and should be a priority for healthcare organizations. By promoting a supportive work environment, providing opportunities for professional growth, and encouraging self-care, organizations can help to enhance life satisfaction among their nursing staff and improve the quality of care provided to patients.

CHAPTER 3:
Self-Compassion

3.1 Conceptualization of self-compassion

The conceptualization of self-compassion is rooted in Buddhist principles that consider it as equally important as compassion for others because compassion itself is a prerequisite for sympathy for others. Self-compassion refers to being open and accepting of one's sufferings, having feelings of concern and sympathy towards oneself, adopting a non-judgmental attitude by perceiving one's inadequacies, and recognizing that pain is part of the human experience. According to Neff, self-compassion is no different from compassion for others. As for what it is like to experience compassion, first, to have sympathy for others requires noticing that they are difficult. If a homeless person is ignored on the streets, one cannot show sympathy for the hardship they are facing. Second, compassion is an emotion that is stimulated by the pain of others. When this happens, there is a feeling of affection and caring and a desire to somehow help someone who is in need. Having compassion also means understanding when others make mistakes and treating them with kindness instead of judging them harshly. Lastly, when you show compassion for another, it indicates that you acknowledge that hardship, loss, and imperfection are a part of the human experience. Self-compassion means doing the same when faced with a problem or failure, instead of judging and blaming yourself for your shortcomings. You may change in some way to be happier or healthier. Perhaps most importantly, self-compassion entails accepting and honoring humanity (Neff, 2003).

Three components are considered for the concept of self-compassion: 1. Self-kindness versus self-criticism: Self-kindness involves sensitivity, empathy, forgiveness, warmth, as well as patience in all aspects of oneself, actions, feelings, thoughts, and impulses (Kristin D Neff, 2009). People with a compassionate attitude towards themselves consider their value unconditional. Self-compassion emphasizes that even after defeat a person deserves love, happiness, and affection. In contrast, self-blame is hostile, and it criticizes oneself (Barnard & Curry, 2011). 2. Mindfulness versus over-identification or avoidance: Mindfulness refers to a non-judgmental state of mind in which a person views his or her thoughts, and feelings, as they are, without a tendency to suppress or deny them (Brown & Ryan, 2003). Mindfulness opposes over-repetition and ruminating on one's limitations, which prevent a full experience of the present. Avoiding unpleasant sensations and thoughts is another extreme way. Avoidance is assumed to exacerbate negative moods in the long run (Barnard & Curry, 2011). 3. Common humanity versus isolation: The common human experience mentions forgiving oneself for being human, imperfect, and limited. In times of pain or disappointment, many people feel separated from others. Such people believe that lack of success is shameful and that they must often hide their true selves. They feel that they are the only ones struggling with negligence or inadequacies. Compassion includes recognizing that personal suffering and failure are part of the common human experience, something we all share, not something that only affects me. Nowadays, the combination of these three interrelated

components is the characteristic of a person with self-compassion (Neff & Germer, 2017).

Self-compassion is a relatively new area of the psychological sciences that has gained increasing attention in recent years. Self-compassion is an invaluable aspect of emotional well-being and can help individuals cope with stress, anxiety, depression, and other negative emotions. By treating themselves with compassion, individuals can cultivate greater self-awareness, self-acceptance, and self-respect, which can lead to improved mental and physical health, as well as stronger relationships with others. Furthermore, self-compassion is an incredibly valuable skill to cultivate for mental and emotional health and can help individuals navigate the ups and downs of life with much ease and self-acceptance. Contrary to popular belief, self-compassion can increase productivity and achievement. By being kind to the self, individuals can reduce self-criticism, which can often lead to feelings of inadequacy and procrastination. This can result in an improved sense of motivation and confidence, and a more effective approach to work and personal goals. Research has shown that self-compassion can have a positive impact on physical health. By reducing stress and promoting relaxation, self-compassion can help individuals cope with chronic pain, illness, and other physical health issues. Finally, studies have also explored the role of self-compassion in various populations, such as individuals with chronic pain, caregivers, and healthcare professionals. Research has found that self-compassion can be a valuable resource for these populations, improving their ability to cope with stress, promote self-care, and enhance overall well-being (Bluth & Neff, 2018).

Practicing self-compassion involves intentionally directing kind and supportive attitudes and actions towards oneself, such as offering oneself words of encouragement, treating oneself to acts of self-care, and challenging self-criticism with a more understanding and accepting perspective. Self-compassion means taking time to reflect on experiences, acknowledging any difficult emotions or experiences, and practicing self-acceptance. With self-compassion, people are gentle and understanding and use sympathetic language to talk to themselves. They connect with others and get support from them or join a support group. In addition, it is imperative to take time to take care of yourself physically, emotionally, and mentally. This can be a relaxing bath, a fascinating book, or a walk in nature. It is further challenged to work on self-criticism and practice recognizing and challenging negative self-talk and self-judgment. Affirmations or positive self-talk are used to deal with negative self-perception. Forgiving and allowing mistakes to be made when things don't turn out according to plan is a practice. Learning from mistakes and using them is an opportunity to grow. It may take time to develop this skill, but with consistent effort and practice, we can cultivate a kinder, more compassionate relationship with ourselves, and improve our emotional and mental well-being (Neff & Germer, 2018).

3.2 Self-compassion against Self-esteem

Although self-compassion may seem similar to self-esteem, they differ in several ways. Sense of self-worth and perceived worth is self-esteem. The need for high self-esteem may cause us to ignore, distort, or hide our flaws so that we cannot see ourselves properly and clearly. Finally, self-esteem is often dependent on our most recent failures or successes. This means that self-esteem fluctuates depending on circumstances (Germer & Neff, 2013). In contrast to self-esteem, self-compassion is not based on self-evaluation. Persons feel compassion for themselves because all human beings are worthy of compassion and understanding. This is not because they have a set of special qualities such as beauty, intelligence, talent, etc. This means that with self-compassion, you don't have to feel superior to others to feel confident about yourself. Moreover, self-compassion is not dependent on external circumstances. It is always there, especially when you fail embarrassingly. Research shows that, compared to self-esteem, self-compassion is associated with greater resilience, a more accurate self-concept, more caring relationships, and less reactive anger (Neff, 2003).

The study by Leary et al. (2007) found that individuals with high self-esteem tended to attribute unfavorable evaluations and unpleasant events to themselves compared to subjects with low self-esteem. On the other hand, people with more self-compassion attribute adverse incidents more to their personalities. Thus, one difference between self-compassion and self-esteem is defensiveness. When a person with elevated self-esteem is faced with negative life circumstances, they sometimes engage in self-bias, possibly because such reactions help them feel better about themselves. In contrast, self-compassionate people may attribute it to personal responsibility while simultaneously being kind toward their own selves. Both of these strategies can help people avoid negative emotions, but self-compassion can have benefits that self-esteem does not (Leary et al., 2007).

As theorists have mentioned, people often sustain their positive feelings through their delusions. Despite the negative judgments of individuals, such illusions are often delicately cultivated, and reinforced by a degree of self-deception. Not only do these beliefs compromise people's ability to see themselves and others, but they are sometimes held even in the face of undeniable evidence of flaws and deficiencies. In contrast, self-compassion does not require any illusions or defenses, but rather involves a clear comprehension of the person's characteristics, which include both goodness and badness. It is assumed that identifying and recognizing flaws and deficiencies is more useful than denying them, while self-compassion can strengthen accurate and realistic perceptions and, as a result, create effective behavior (Leary et al., 2007).

Gilbert and Irons (2005) compared self-compassion and self-esteem in terms of their relevance to the biological, psychological, and social systems that mediate responses to threats. They posit that self-compassion deactivates the threat system associated with

insecurity and defensiveness and activates the self-soothing system linked with sensations of security, while self-esteem is connected with social degree evaluations and the superiority of the individual. Thus, self-compassion promotes emotional regulation, but self-esteem does not do it (Paul Gilbert & Irons, 2005). Deci and Ryan (1995) have made a distinction between true self-esteem that arises from autonomy, volitional actions that reflect one's true identity, and conditional self-esteem that is based on external standards and comparisons with others. It is said that real self-esteem arises from a sense of self-congruity that expands as a person acts actively in a context, and this leads to the satisfaction of three basic psychological needs, i.e., autonomy, competence, and communication. While conditional self-esteem is described as a form of self-aggrandizing (Deci & Ryan, 1995). In this theory, people with high self-compassion should also tend to have true self-esteem because their attitudes are not dependent on standards or comparisons with others. Nevertheless, these two constructs are still theoretically distinct. Self-compassion emphasizes kindness to the self, human sharing, and mindfulness, while Desi and Ryan's conceptualization of true self-esteem emphasizes autonomy and independence (Neff, 2009).

3.3 Self-compassion and attachment

Self-compassion and attachment are two concepts that are related to an individual's emotional well-being and can have an impact on their overall life satisfaction. Attachment theory suggests that individuals develop a sense of attachment style based on their early experiences with their primary caregivers. Research has suggested that self-compassion is associated with a more secure attachment style, as self-compassionate individuals are more likely to be comfortable with vulnerability and emotional intimacy. Self-compassion is largely derived from a person's attachment system, such that individuals who have grown up in secure environments and have supportive caregiver relationships are more likely to relate to themselves compassionately, and caregivers are empowered. In contrast to those who were raised in unsafe, stressful, or threatening surroundings and were exposed to constant aggression and criticism from those who cared for them, they tend to become more self-critical (Paul Gilbert & Irons, 2005). Research also shows that critical maternal relations and stressful family connections have a negative association with self-compassion in youth (Neff & McGehee, 2010). Overall, the relationship between self-compassion and attachment suggests that developing self-compassion can be a useful way to improve emotional well-being and develop healthier relationships with others.

3.4 Self-compassion and therapy for shame and high self-criticism

Shame and high self-criticism can be challenging emotions to manage and can have a negative impact on mental and emotional well-being. Shame is often characterized

by feelings of inadequacy and embarrassment, while self-criticism involves a tendency to judge oneself harshly for perceived mistakes or shortcomings. Recently, shame has been recognized as one of the basic components of a range of mental health problems and readiness for aggression. Self-criticism is significantly related to shame, and both can heighten the risk of developing psychological symptoms and the rate of disease recurrence in persons (Paul Gilbert & Irons, 2005). Studies have shown that increasing self-compassion is more beneficial than increasing self-value in clinical situations for individuals with low self-value. If people learn to feel better but at the same time berate themselves for their failures or mistakes, they cannot face their problems non-defensively. Furthermore, boosting self-compassion in these individuals is easier than boosting self-worth (Leary et al., 2007).

Compassionate mind training is the name of the intervention that Gilbert (2005) proposed to treat people with high shame and self-criticism, chronic problems, and persons with low self-acceptance. In this treatment method, the focus is on changing one's self-evaluation. Compassion-focused therapy (CFT) is a type of therapy that is specifically designed to help people who struggle with shame and self-criticism. The goal of CFT is to help people develop self-compassion, which involves treating oneself with the same kindness, concern, and understanding that one would offer to a friend who is suffering. In CFT, the therapist teaches the client to understand how the brain processes emotions and how this can lead to self-criticism and shame, and also encourages the client to identify situations and triggers that lead to feelings of shame and self-criticism. Through guided exercises and techniques, the therapist aids the client to develop self-compassion and to challenge negative thoughts and beliefs. Some techniques that may be used in CFT include: Mindfulness - practicing mindfulness can allow individuals to become more aware of their thoughts and feelings without becoming overwhelmed by them. Imagery - using positive imagery can help individuals generate feelings of warmth and compassion toward themselves. Compassionate letter writing - writing a compassionate letter to the self can assist a person to challenge negative self-beliefs and to develop a more compassionate self-image. Socratic questioning - questioning negative beliefs and challenging them in order to develop more positive self-talk. Overall, self-acceptance can be a helpful approach for those struggling with shame and self-criticism (Gilbert & Irons, 2005).

3.5 Self-compassion and the regulation of emotions

Self-compassion plays a significant role in the regulation of emotions. Emotion regulation refers to the process of regulating and controlling one's emotions. Emotions are a natural part of being human, but they can sometimes feel overwhelming or difficult to manage. Effective emotion regulation involves developing strategies to manage emotions healthily and adaptively. When we experience difficult emotions, such as sadness,

anxiety, or anger, our natural response can be to judge and criticize ourselves for feeling that way. This self-criticism can make the emotions even more intense and overwhelming. Self-compassion, on the other hand, involves treating ourselves with kindness and understanding, even in the midst of difficult emotions. This can help regulate emotions and prevent them from spiraling out of control. Psychological instability can lead to difficulties managing emotions and responding to stress. Self-compassion has been found to be effective in promoting emotional regulation, by encouraging individuals to respond to their emotions with kindness and understanding, rather than judgment or criticism. Research has shown that strategies to deal with an emotional approach in which people make effective efforts to maintain awareness, and comprehension of their emotions are related to positive psychological adaptations. On the other hand, self-compassion can be used as a strategy in many ways. Since self-compassion requires a conscious awareness of one's feelings, painful and uncomfortable impressions are no longer avoided but can be approached with kindness, perception, and a sense of human commonality. Therefore, negative emotions turn into positive ones. Moreover, self-compassion helps to activate the self-soothing system and allows individuals to better understand their situation as well as take action to change things in an effective way. As a whole, developing self-compassion can be a valuable tool for regulating emotions and promoting emotional well-being. By learning to treat ourselves with kindness and understanding, we can more effectively cope with difficult emotions and respond to challenging situations in a more positive and productive way (Diedrich et al., 2014; Gilbert & Irons, 2005).

3.6 Self-compassion and Resilience

Self-compassion and resilience are two related concepts that can have a significant impact on an individual's emotional well-being. Resilience refers to the ability of an individual to adapt and recover from adversity, trauma, or stress. It is the capacity to maintain or regain normal functioning in spite of challenging circumstances. Resilience is not a fixed trait; it can be developed and strengthened over time through various practices such as developing coping skills, social support, and a positive mindset. Investigation evidence shows that self-compassion promotes resilience, such that people who have higher levels of this personality trait have less tend to suppress or ruminate. Self-compassionate individuals can recognize and accept their flaws and mistakes and respond to themselves with kindness and understanding, rather than harsh criticism or self-judgment. Resilience, on the other hand, refers to an individual's ability to cope with and recover from stressful or difficult situations. Resilient individuals are able to adapt to change, overcome challenges, and bounce back from setbacks. Self-compassionate individuals can respond to difficulties with increasing self-acceptance and kindness, which can help them to more effectively manage stress and cope with challenging situations (Neff et al., 2005). In addition to protecting a person from harmful mental

states, self-compassion also plays a role in strengthening healthy moods. Although self-compassion is associated with positive thoughts, this property is not simply a helpful way of thinking, but rather the ability to hold unwanted feelings in non-judgmental awareness without suppressing or denying the unfavorable aspects of the experience. For example, it's not that people with self-compassion use fewer words that show adverse emotions when describing their weaknesses, they just report less anxiety when they consider confronting weaknesses. Overall, the relationship between self-compassion and resilience highlights the importance of being kind and supportive of oneself in building emotional resilience and managing stress. By practicing self-compassion, individuals can develop the skills and mindset needed to cope with challenges and setbacks, and build their overall emotional well-being (Neff & Pommier, 2013).

3.7 Self-compassion and Mental health

Mental health is a vital aspect of overall health and well-being and should be prioritized alongside physical health concerns. It includes the emotional, psychological, and social aspects of a person's life, and encompasses a range of factors such as thoughts, feelings, behaviors, and relationships. Having good mental health is characterized by the ability to cope with the normal stresses of life, maintain a positive outlook, and engage in productive activities. However, mental health problems can arise when a person experiences ongoing stress or trauma, has difficulty coping with life's challenges or experiences a chemical imbalance in the brain. Enduring mental distress can cause unpleasant emotions such as depression or anxiety. In addition, it might cause mild or severe physical diseases, but the reaction of people to stressful events is not the same in any way. Some people suffer serious psychiatric and medical problems as a result of these situations. However, for some others, there is no difficulty and it may even be an exciting experience. In general, psychological pressure is created when people face incidents that threaten their psychological or physical health. High self-compassion predicts the improvement of psychic well-being over time and explains the reduction in tension (Kristin D Neff et al., 2007).

Self-compassion has been linked to a range of positive mental health outcomes, including lower levels of anxiety, depression, and stress, and greater emotional well-being and life satisfaction. This approach to self-care is effective at promoting emotional resilience, reducing negative self-talk and self-criticism, and increasing positive emotions. Research has suggested that self-compassion can be particularly beneficial for individuals who struggle with mental health conditions, such as anxiety or depression. In these cases, practicing self-compassion can help individuals shift their focus from negative self-judgment to a more constructive, supportive inner dialogue. This can lead to enhanced self-acceptance and self-esteem, which can in turn promote emotional well-being and mental health. In addition to promoting positive emotions and reducing

negative self-talk, self-compassion has also been found to be effective at reducing stress and promoting healthy coping strategies. By responding to difficulties with kindness and understanding, individuals can develop heightened emotional resilience and better manage stress (Allen & Leary, 2010). Basic principles of compassion-based therapy suggest that external soothing thoughts, factors, images, and behaviors must be internalized, and in this case, the human mind reacts to internals the same way it responds to externals. For some people, the most detrimental harm of mental disorders such as anxiety and depression is that they cannot easily achieve a state of compassion. This process is tough for them. In this case, not only any kind of self-compassion becomes impossible, but also the characteristics opposite to self-compassion are intensified in them (Paul Gilbert & Irons, 2005).

Furthermore, self-compassion can promote mindfulness. Mindfulness is the practice of being present at the moment and non-judgmentally observing one's thoughts and emotions. Mindfulness is a powerful tool that can bring about numerous benefits for one's physical, emotional, and mental well-being. It can help individuals cultivate greater awareness and acceptance, leading to greater peace and happiness in their lives. Self-compassion and mindfulness are closely related, as self-compassion involves accepting one's thoughts and emotions with kindness and understanding. Practicing self-compassion can therefore promote greater mindfulness, which has been shown to be effective at reducing stress and anxiety and improving overall mental health (Pauley & McPherson, 2010).

There are some additional points on the relationship between self-compassion and mental health. Self-compassion can reduce symptoms of trauma. Trauma can lead to a range of negative mental health outcomes; including anxiety, depression, and post-traumatic stress disorder (PTSD). Self-compassion has been found to be effective in reducing symptoms of trauma, by promoting increased emotional resilience and adaptive coping strategies (Germer & Neff, 2015). Self-compassion can improve self-esteem. Low self-esteem is a common feature of many mental health conditions and can lead to negative self-talk, self-doubt, and feelings of worthlessness. Self-compassion has been found to be effective in improving self-esteem, by encouraging individuals to respond to themselves with kindness and understanding and to recognize their inherent value and worth (Neff, 2011). As a result, the relationship between self-compassion and mental health suggests that developing a self-compassionate approach to self-care can be a valuable tool in promoting emotional well-being and managing mental health conditions.

3.8 Individual and group differences in self-compassion

An interesting question concerns the types of environments that foster or inhibit the development of self-compassion in individuals. For example, a child's early upbringing can affect whether a child grows up to be a self-compassionate adult or not.

Schafer (1968) suggested that a person's ability to experience empathy - which is defined as the ability to pay enough attention to one's emotions - is through the process of internalizing the empathic responses of the surroundings that a person experiences in childhood. The capability to recognize and attend to internal emotional states is related to the empathy children receive from their primary caregivers. This indicates that people who experience supportive and warm relationships with their parents and perceive them as compassionate individuals tend to have self-compassion in adulthood (Schafer, 1968). Another question is whether there are differences in self-compassion based on group variables such as age, gender, or culture. Since women are generally thought to have a stronger sense of self-relationship (Cross & Madson, 1997) and more empathy than men (Eisenberg & Lennon, 1983), it is expected that women will be more self-compassionate (Neff & Vonk, 2009). On the other hand, research evidence shows that women tend to be more self-critical and ruminative than men, which suggests that women may have a lower level of compassion than men (Leadbeater et al., 1999). Differences across cultures present another similar paradox. Individuals from collectivist cultures, especially Asians, have been described as having a more profound sense of self-relationship (Kitayama et al., 2000) and because they might have had early exposure to Buddhist teachings on self-compassion. Asians are expected to have higher compassion than Westerners (K. Neff, 2003). However, Asians are much more self-critical than Westerners (Kitayama et al., 2000), which suggests that Asians have less self-compassion than Westerners. Currently, it is unclear whether the development of self-compassion is inhibited or enhanced by cultural norms or by gender (Neff, 2009).

The literature on age-group differences in self-compassion provides a clear foundation. Adolescence is often the period in which self-compassion is at its lowest. They show cognitive growth, introspection, metacognition, self-reflection, the ability to receive and exchange opinions in a social setting, as well as taking on some responsibilities. These emerging abilities mean that teenagers constantly evaluate and compare themselves with others as they are attempting to establish their identity and position in social groups. There is no doubt that self-centeredness contributes to excessive self-criticism and feelings of isolation, which means that self-compassion is needed at this time of life. This unintended consequence of teens failing to evaluate themselves positively leads to a heightened tendency toward negative judgments. Unfortunately, negative self-judgments have been strongly implicated in the high prevalence of depression among adolescents, and in severe cases have been associated with suicide (Harter & Marold, 1994). Therefore, a more impressive intervention would be to encourage adolescents to overcome tendencies against self-compassion by teaching them kindness and self-understanding, recognizing that most teens face these problems and that they should try to maintain a balanced awareness of their inner experiences (Neff, 2003).

3.9 Techniques to promote Self-compassion

As researchers support the beneficial nature of developing self-compassion, psychologists are increasingly interested in ways to increase and promote self-compassion. Practicing mindfulness is one of the main ways to promote self-compassion. It is assumed that mindfulness is a prerequisite for self-compassion and is one of its building blocks. Mindfulness is an essential practice that can bring about numerous benefits for one's physical, emotional, and mental well-being. Mindfulness has been shown to reduce stress and anxiety by promoting relaxation and helping individuals develop a more positive outlook. Practicing mindfulness can help individuals regulate their emotions, allowing them to respond to situations more calmly and effectively. In addition, it has been shown to improve attention, memory, and decision-making skills. Finally, mindfulness can lead to enhanced happiness and life satisfaction. The most extensive mindfulness practice program is the Mindfulness-Based Stress Reduction Program, an experiential learning course that includes eight group sessions, and a core program of mindfulness meditation practices (Kabat- Zinn, 1982; Grossman et al., 2004)

Paul Gilbert (2005), based on developmental psychology, emotional neuroscience, and evolutionary theory, has invented a comprehensive form of experimental behavior therapy under the title "Mindfulness-based cognitive therapy". According to his belief, compassion is a multi-faceted and multi-dimensional process that develops as a consequence of parents' caring behaviors. Thus, compassion includes a collection of emotional, cognitive, and motivational elements that are involved in the ability to create opportunities for growth and change along with kindness and care. Although Gilbert's definition is clinically useful, it is pertinent to note that mindfulness-based cognitive therapy bases its conceptualization of compassion on basic science concepts rather than clinical observations. In the model based on compassion, a link has been established between the processes in the experience of compassion and emotion and arousal of the neurophysiological system, especially those related to social behaviors, through the two dimensions of passion and healing. The historical formation of this treatment model is rooted in the lack of improvement in negative emotions in cognitive-behavioral treatments. The basic principles of Mindfulness-based cognitive therapy indicate that external soothing thoughts, factors, images, and behaviors must be internalized, and in this case, the human mind will be calm in the face of the internals just as it reacts to external aspects. Although this model itself is considered a simple therapeutic approach, its methods are designed to be used by therapists who are beginning their work in other treatment approaches. Teaching a procedure centered on compassion, whether in the form of a therapeutic approach or other remedy methods, is very valuable (Gilbert & Irons, 2005).

Teaching compassionate attention begins with mindfulness practice, and enables clients to pay attention to the present with acceptance and sympathy. Mindfulness-based

cognitive therapy starts with the practice of balanced and calming breathing. This breathing exercise is one of the main mindfulness actions in therapy. It is used as a starting point for most functions connected to the training of a peaceful mind. Compassionate attention leads to the relaxation of the mind and body (Gilbert, 2009). Cultivating a kind mind begins with promoting mindfulness and compassion and continues with visualization practices. In this way, the mind's capacities for empathy, calmness, and courageous acceptance, which indicate inner gentleness and strength, are directly awakened. This process requires a lot of time and involves working directly with people's distress. Visualization is considered one of the most powerful tools for cultivating a kind mind due to its ability to activate different emotions and bodily sensations. When the mind is visualizing, one's whole being reacts as if the mental event is happening. For example, imagining food in a state of hunger stimulates the salivary glands. Also, imagining a sexual scene leads to a feeling of arousal. Additionally, visualization becomes problematic when it creates fusion and avoids experience. For instance, visualization of a possible danger creates fear and thus avoidance of the situation. However, the ability to visualize someone and stimulate the brain and body systems via it can lead to the occurrence of calming feelings and relaxation. Therefore, compassionate imagery activates the brain systems in a way that helps a person tolerate and cope with suffering. Another technique used is the imagination of a safe place; which is the result of the creativity and unique imagery of each client, giving a sense of safety and peace in a place full of calmness and comfort, and assurance about health. Security and relaxation are activated as a consequence of this role (Tirch, 2010).

Furthermore, the two-chair technique is the other primary method employed in compassion-based treatment. The technique, while facilitating the process of breaking away from their content, allows clients to experience different emotions while communicating with the present. This approach has been used in experimental and Gestalt therapies. Based on this procedure, therapists encourage clients to play the role of various types of "selves" by using different chairs while displaying diverse emotional selves such as angry self, anxious self, critical self, and provide a basis for cultivating a kind mind and bond with oneself (Tirch, 2012).

Moreover, compassionate behaviors lead to a greater sense of self-compassion. Reinforcing compassionate manners includes the development of intelligent behaviors, gaining strength and courage, and affection, active participation through behavioral activation techniques in difficult and frightening activities, specifying valuable goals and choosing the plan of health care, and becoming the creator of one's own goals. As well, self-compassionate behaviors refer to actions or behaviors that are motivated by a sense of empathy, kindness, and concern for oneself. These behaviors may include acts of self-care, self-acceptance, and self-forgiveness. Examples of self-compassionate behaviors include: Engaging in self-care: This could involve taking time to engage in activities that promote relaxation, such as yoga or meditation, getting enough sleep, and eating a

healthy diet. Being kind and gentle with the self: This means treating oneself with the same kindness, understanding, and compassion you would extend to a friend. Practicing self-acceptance: This means accepting oneself for who you are, taking into account both strengths and weaknesses, and refraining from harsh self-judgment or self-criticism. Setting healthy boundaries: This involves setting limits on how much time and energy one is willing to invest in certain activities or relationships, and prioritizing one's own well-being and needs. Practicing self-forgiveness: This involves letting go of self-blame or self-criticism for past mistakes, and instead approaching oneself with understanding, compassion, and forgiveness. Seeking help when needed: This involves recognizing when one needs support or assistance, and being willing to ask for help from others. Generally, self-compassionate behaviors help promote self-esteem, reduce stress and anxiety, and improve overall well-being. By developing self-compassion, individuals can cultivate a greater sense of self-awareness, self-acceptance, and self-love, which can in turn help them to navigate life's challenges with enhanced resilience and confidence (Tirch, 2012).

In training a kind mind, compassionate traits, and proficiencies are strengthened. As a result of practicing, these characteristics become the main features and while developing their behavioral treasury, they enable a valuable life. For example, if we compare these techniques and practices to learning to play a musical instrument, one must learn many skills such as exercising the fingers, how to play notes, memorizing pieces of music, and performing them. All these processes affect how well one performs music. Evidence shows that prolonged practice of playing a musical instrument forms new neural connections whereby the musician's mind and body function functionally similarly to the mind and body of a professional musician. Therefore, cultivating a kind mind leads to modifications in the activities and neural structures of the brain. Hence, enhancing compassionate traits and skills changes the mind and brain in a significant and stable way (Lutz et al., 2008).

3.10 The importance of Self-compassion

The results of studies and research reinforce the idea that self-compassion is beneficial for physical and mental health and developing helpful psychological abilities. Here's a brief overview of how self-compassion can contribute to the development of happiness, optimism, wisdom, emotional intelligence, and curiosity: Self-compassion can promote happiness by helping individuals cultivate a kinder, more accepting attitude toward the self. Instead of being overly self-critical or harsh, individuals who practice self-compassion can extend the same kindness and understanding to themselves that they would offer to their closest friends. This can lead to enhanced self-esteem, positive emotions, and an overall sense of contentment and happiness. It may also contribute to helping foster optimism by encouraging individuals to cultivate a more positive outlook on life. When faced with challenges or setbacks, persons who practice self-compassion

are prepared to respond with a greater sense of resilience and optimism. They are better able to recognize that setbacks are a normal part of life and that they have the inner resources to overcome them. As well, self-compassion can contribute to the development of wisdom by assisting people to cultivate a greater sense of self-awareness and insight. People are more likely to learn from their experiences and advance in knowledge when they approach their thoughts, emotions, and behavior with curiosity and openness. Finally, self-compassion can be an essential ingredient in fostering psychological abilities such as personal initiative, and emotional intelligence. By reducing self-criticism and increasing self-awareness, self-compassion can help foster personal initiative. Compassionate people are more likely to feel motivated to take action toward their goals and help to overcome feelings of fear and self-doubt, which can often hold them back from taking initiative. Self-compassion can contribute to the development of emotional intelligence by enabling individuals to cultivate a deeper sense of self-awareness and empathy. This can lead to heightened self-awareness, personal growth, and a deeper sense of connection with others (Hollis-Walker & Colosimo, 2011).

Self-compassion is closely related to shame and self-criticism and can play a significant role in reducing their negative impact on mental health and well-being. Shame is an emotion characterized by feelings of embarrassment, guilt, and humiliation that arise when an individual perceives themselves as being flawed, unworthy, or inferior. Self-criticism is a tendency to judge oneself harshly, often based on unrealistic standards or expectations. Research has shown that self-compassion can act as an antidote to both shame and self-criticism. By offering kindness, understanding, and acceptance, individuals can begin to challenge the negative self-beliefs and self-talk that underlie these destructive patterns. Self-compassion helps to cultivate a sense of self-worth and self-esteem, which can counteract the feelings of shame and inadequacy that often accompany self-criticism. Recognizing that suffering is a part of the human experience and responding with empathy and care can reduce the tendency to blame the self for perceived shortcomings or failures (Gilbert & Procter, 2006).

In addition, Self-compassion has been linked to positive relationships with others. Research suggests that self-compassionate individuals are more likely to have secure attachment styles and healthy interpersonal interactions. They are more willing to exhibit empathy and compassion towards others and are less inclined to engage in behaviors that could harm or strain their relationships. Findings support the hypothesis that self-compassion affects the attachment system. As an example, those who lack self-compassion are more likely to have had critical mothers, and dysfunctional families, and show insecure attachment patterns than self-compassionate people (Neff & Germer, 2013). As well, studies have found that self-compassionate individuals improve their communication performance and report more empathic concern, altruism, and forgiveness. One reason why self-compassion promotes positive relationships with others is that it helps individuals regulate their emotions more effectively. When individuals are

more self-compassionate, they are better able to manage difficult emotions such as anger, frustration, or anxiety, which can prevent these emotions from spilling over into their interactions with others (Neff & Beretvas, 2013, Neff & Pommier, 2013).

According to studies, higher levels of self-compassion may increase resilience, reduce stress, and prevent mental illness (Neff & McGehee, 2010). Resilience is an essential characteristic for individuals and communities to possess as it allows them to better navigate the challenges and uncertainties of life. Resilience refers to the capacity to maintain or regain normal functioning in the face of difficult circumstances. Resilient individuals have effective coping skills for stress and adversity and are able to continue forward with their lives. Gilbert and Proctor (2006) proposed that self-compassion creates emotional resilience, as it deactivates the threat system associated with feelings of insecure attachment, defensiveness, and autonomic arousal, and activates the care system associated with feelings of secure attachment, security, and sedation (Paul Gilbert & Proctor, 2006). On the other hand, perceived stress refers to the extent to which an individual appraises and experiences a situation as stressful. It is the degree to which one feels overwhelmed, anxious, or worried in response to perceived demands, pressures, or threats. Research has shown that self-compassion can play a protective role in reducing anxiety and stress. When individuals practice self-compassion, they are more able to respond to difficult conditions with a sense of resilience and inner strength, rather than feeling frustrated and stressed (Luo et al., 2019; Neely et al., 2009; Sirois & Hirsch, 2019). Additionally, self-compassion has been found to reduce the negative impact of perceived stress on mental health outcomes such as anxiety and depression. By providing a buffer against the negative effects of stress, it promotes health and resiliency in facing difficult circumstances and more satisfaction in life (Edwards et al., 2019; Germer & Siegel, 2012; MacBeth & Gumley, 2012; Soysa & Wilcomb, 2015; Van Dam et al., 2011).

Furthermore, self-compassion can be a valuable tool in preventing and managing burnout. Burnout is a state of physical, emotional, and mental exhaustion caused by prolonged stress and can lead to feelings of cynicism, detachment, and a decreased sense of accomplishment. When individuals experience burnout, they may be hard on themselves, engage in self-criticism, and have high expectations of themselves that can be difficult to meet. Practicing self-compassion can help individuals acknowledge their limitations, take a break, and seek support when needed. It can also help to reduce the negative effects of stress by increasing positive emotions, reducing negative emotions, and promoting resilience (Alkema et al., 2008; Beaumont et al., 2016).

Another capability of self-compassion is the ability to effectively cope with life stressors such as academic failure (Neff et al., 2005), divorce (Sbarra et al., 2012), or chronic pain (Costa & Pinto-Gouveia, 2011). Childhood emotional abuse is also associated with lower self-compassion (Tanaka et al., 2011). Self-compassion appears to

mediate between childhood abuse and later emotional dysregulation, meaning that abused individuals with higher levels of self-compassion are more able to cope with distressing events (Vettese et al., 2011). This bond remained even after the abuse history, suggesting that self-compassion is an influential resilience factor for those seeking treatment for past trauma (P Gilbert, 2009). Additionally, research suggests that those with higher levels of self-compassion are better able to overcome their flaws and resolve their moral issues and dilemmas (Breines & Chen, 2012).

It has been discovered that self-compassion has a beneficial effect on diet, exercise, and increased medical treatment when needed. Research suggests that individuals who practice self-compassion are more likely to engage in healthy behaviors, such as having a balanced diet, exercising regularly, and getting enough sleep. This may be because self-compassion fosters a sense of self-care and self-nurturing, which can motivate individuals to prioritize their health and well-being (Adams & Leary, 2007; Magnus et al., 2010; Moffitt et al., 2018). Furthermore, self-compassion has been shown to reduce unhealthy behaviors such as binge eating, smoking, and alcohol abuse. This might be because self-compassion helps individuals to break the cycle of shame and self-criticism that often underlies these behaviors, and to develop a more positive and accepting relationship with themselves (Kelly et al., 2010).

As a whole, self-compassion can play an important role in promoting life satisfaction by promoting a more positive and accepting relationship with oneself, reducing negative emotions fostering resilience and emotional well-being, and building positive relationships with others. A 2016 survey was carried out online through a Chinese survey website by Yang et al and examined the relationship between self-compassion, hope, and life satisfaction in a sample of Chinese adults. In this study, 320 adults completed the self-compassion scale and the life satisfaction scale. The structural equation model results showed that self-compassion has a positive relationship with hope and life satisfaction (Yang et al., 2016). As well, in 2015, Zessin et al. (2015) released a meta-analysis study with the title: The relationship between self-compassion and well-being to investigate the relationship between self-compassion and different forms of well-being. In this investigation by examining 74 studies, the results clearly show the importance of self-compassion for people's well-being.

3.11 Self-compassion in Nurses

Self-compassion is an invaluable component of overall well-being, particularly for nurses who often work in demanding and emotionally challenging environments. Nurses' self-compassion as caregivers produces varied effects and has helped nurses to face their work environment and life experiences and events with added strength (Shapiro et al., 2005). Some of the specific benefits of self-compassion for nurses include: Reduced stress and burnout: Self-compassion can alleviate symptoms of burnout. By treating

themselves with kindness and understanding, nurses may be better equipped to cope with the stress and demands of their job, decreasing their risk of burnout (Duarte & Pinto-Gouveia, 2016). Mahon et al. (2017), found that nurses' perceived stress decreased after an intervention based on mindfulness and self-compassion (Mahon et al., 2017). Moreover, Hashem and Zinon conducted a study in Lebanon in 2020 titled self-compassion explains less burnout among healthcare professionals. They surveyed 93 nurses, doctors, and medical assistants in the study. The findings of this study showed that all components of burnout were significantly and inversely related to self-compassion. The strong relationship between emotional exhaustion and self-compassion may be considered a protective factor (Hashem & Zeinoun, 2020). Additionally, the study of Satake and Arao (2020) demonstrated that the negative aspects of self-compassion are negatively related to conflict and job burnout (except for the reduction of personal success). They concluded that screening nurses with low compassion are necessary to prevent burnout and create opportunities to change their cognition and reveal their conflicts. As well, Dev et al. (2018) in research with the title Does self-compassion mitigate the relationship between burnout and barriers to compassion? A cross-sectional quantitative study of 799 nurses in New Zealand concluded that more burnout predicted higher barriers to compassion, whereas self-compassion predicted fewer barriers. However, self-compassion can moderate the relationship between burnout and compassion-related barriers (Dev et al., 2018).

Improved emotional regulation: Emotional regulation refers to the ability to manage and control one's own emotions in a healthy and adaptive way. It involves being aware of one's emotions, understanding them, and using strategies to modulate their intensity and expression. Effective emotional regulation allows individuals to respond to challenging situations in a productive and constructive manner, rather than being overwhelmed by their emotions. There are many different strategies that individuals can use to regulate their emotions, depending on their personal preferences and the situation at hand. Self-compassion helps individuals regulate their emotions, which can be especially beneficial in stressful work environments where emotions can run high. In addition, self-compassion facilitates their recovery and adaptability as well as makes them feel secure and emotionally calm. These factors improve well-being and therefore nurses will be able to treat the sick as a person apart from stress and burnout in the work environment and have solidarity and compassion towards their patients and enhance the quality of care provided (Kret, 2011). Kotra et al. (2021) in a study of UK nursing students (182 nurses), the full mediating role of self-compassion in sleep and mental health was highlighted. This research showed that mental health problems had a positive relationship with shame and a negative relationship with self-compassion and sleep. Mental health shame positively predicted mental health problems and self-compassion negatively predicted mental health problems. Finally, self-compassion effectively offsets the effects of sleep on mental health problems. This study explained the negative

relationship between mental health problems and sleep entirely through self-compassion (Kotera et al., 2021).

Enhanced work-life and well-being balance: Overall, self-compassion is a critical component of well-being, as it can help individuals improve their overall quality of life and increase their capacity to cope with life's challenges. Nurses who are compassionate towards themselves are more likely to prioritize self-care and engage in activities that promote balance and well-being (Zessin et al., 2015). Durkin et al. conducted a pilot study in 2016 to explore the relationship between self-compassion, self-judgment, self-kindness, compassion, professional quality of life, and well-being among UK community nurses, a total of 37 professionals who were enrolled at a university. They found that higher levels of self-compassion were associated with lower levels of burnout. Additionally, when community nurses have greater satisfaction with compassion and more compassion for others, they report increased well-being and less burnout (Durkin et al., 2016). Research by Sanso et al in 2020 under the title Predicting professional quality of life and life satisfaction in Spanish nurses investigated the effect of self-care and self-compassion on the quality of professional life and well-being of nurses. During the study, 210 nurses from the public health system of the Balearic Islands participated. This research presents a comprehensive structural equation model in which self-care and self-compassion are the most significant predictors of nurses' professional quality of life. Finally, they concluded that there is a positive relationship between the quality of professional life and the life satisfaction of nurses (Sanso et al., 2020). Furthermore, in the 2021 Pandey et al study, the mediating role of self-compassion in the association between self-esteem, hedonic well-being, and happiness has been evaluated. The results indicated that positive and not negative self-compassion moderates the relationship between self-esteem and hedonic well-being, as well as self-esteem and well-being. In addition, self-esteem and self-compassion had predictive power for both types of well-being. Findings have shown that the relationship between self-esteem and self-compassion emphasizes well-being (Pandey et al., 2021).

Increased resilience: Resilience is a crucial skill for nurses, as they often face challenging and stressful situations in their work. Resilience refers to the ability to cope with and bounce back from difficult situations, and to maintain a sense of well-being and purpose in the face of adversity. By treating themselves with compassion, nurses can develop a greater sense of resilience and the ability to bounce back from setbacks and challenges. In 2021, Ruiz-Fernandez et al conducted a study on the professional quality of life, self-compassion, resilience, and empathy in healthcare professionals during the COVID-19 crisis in Spain. This study aimed to analyze the quality of professional life among healthcare specialists and its relationship to empathy, resilience, and self-compassion. A cross-sectional survey with 506 healthcare specialists participated by completing an online questionnaire. The results of their research indicated that empathy, resilience, and mindfulness are the main predictors of compassion fatigue, compassion

satisfaction, and job burnout, respectively (Ruiz-Fernández et al., 2021). In addition, Delaney (2018) carried out a pilot study with the topic: Caring for the caregivers: Evaluation of the effect of an eight-week pilot mindful self-compassion (MSC) training program on nurses' compassion fatigue and resilience. The results of this research, with the presence of 13 female nurses as a sample size, showed that the use of self-compassion can significantly reduce the amount of secondary trauma and job burnout of people, and elevate the resilience and satisfaction of compassion (Delaney, 2018).

The improvement of patient care: Improving patient care and self-compassion are closely linked, as healthcare professionals who practice self-compassion are more likely to be resilient, compassionate, and effective in their work, which ultimately benefits their patients. When caregivers are more self-compassionate, they may be better able to regulate their emotions and remain attuned to their patients' needs and concerns, and be better able to maintain empathy and compassion for their patients. Research has shown that self-compassionate nurses are more likely to provide high-quality, patient-centered care and to have more positive relationships with their patients. In investigations that examined the relationship between self-compassion and the quality of patient care, self-compassion as an essential moderating variable improves patient pain and suffering (Bush, 2009; Gilbert, 2009; Mills et al., 2015; Neff & Pommier, 2013; Singh et al., 2018; Wiklund & Wagner, 2013).

Positive relationships with others: Research has shown that self-compassionate individuals are better able to form strong, supportive relationships with others, which can help to foster a supportive work environment and improve the quality of patient care. Self-compassionate individuals are more likely to have secure attachment styles and healthy interpersonal relationships. They are more inclined to exhibit empathy, compassion, and forgiveness towards others, and are less likely to engage in behaviors that could harm or strain their relationships. In addition, self-compassion can promote a sense of interconnectedness and common humanity, which can increase feelings of empathy and compassion towards others. When individuals practice self-compassion, they recognize that they are not alone in their struggles and that all human beings experience pain and suffering at times. This recognition can lead to a greater sense of empathy and compassion for others (Duarte et al., 2016; Neff & Pommier, 2013).

Positive correlation between emotional intelligence and self-compassion: In the survey conducted by Heffernan et al. (2010), a positive correlation between emotional intelligence and self-compassion was reported among a sample of nurses. This may be because individuals with higher emotional intelligence are better able to recognize and regulate their own emotions, which can reduce negative emotions such as self-criticism and increase positive emotions such as self-compassion. Additionally, individuals with higher emotional intelligence may be more aware of the emotions of others, which can

increase their sense of interconnectedness and common humanity, and promote self-compassion (Mary Heffernan et al., 2010).

3.12 Summary of the Chapter

In this chapter, the theoretical underpinnings of the research components were examined. In this way, the concept of fatigue, its sources, and its consequences and the studies conducted in this were discussed first. In the scientific basis of fatigue, as mentioned, nurses are always exposed to pressure and mental tension due to the stressful work environment and are prone to fatigue. Nurse fatigue interferes with the physical and cognitive abilities of the nurse. Neglecting these issues may have negative effects on their personal and professional life and lead to dissatisfaction with life. Then the theoretical foundations of life satisfaction were investigated. Conceptualization and factors affecting life satisfaction, dimensions and patterns of life satisfaction, theories and importance of life satisfaction were described. Also, the results of previous studies conducted in this context were discussed. We found that life satisfaction as one of the indicators of mental health predicts a person's ability to perform better in life and social roles. Self-compassion was another component that was examined. The conceptualization of self-compassion, its relationship with self-esteem, attachment, shame and self-criticism, regulation of emotions and resilience, anxiety, and its importance to mental health and the nursing community, in general, were also mentioned. As we reviewed the research relevant to our study, we discovered that self-compassion is effective at addressing mental health issues and lowering job burnout among healthcare professionals. The findings suggest that self-compassion is useful for enhancing positive psychological components and reducing negative psychological components. With self-compassion, self-esteem, well-being, resilience, and empathy increasing, the level of secondary trauma and job burnout declines significantly. There is also evidence that self-compassion plays an influential mediating role in sleep and mental health, as well as mediates the conflict over end-of-life care and burnout in nurses. Additionally, we found that self-compassion predicts the quality of professional life and life satisfaction in nurses and has a positive relation to hope and life satisfaction.

Reviewing the mentioned background, in addition to confirming the relationship between the variables of fatigue, self-compassion, and life satisfaction in general, it also clarifies the lack and shortcomings of the existing scientific literature in two aspects: firstly, few types of research have been conducted focusing on the nursing community. Second, most investigations are limited to the relationship between life satisfaction and a set of background variables and no local study was found that examined the existence of variables and psychological capitals such as self-compassion about life satisfaction. Considering the role of nurses as key members of the health care team, knowing the factors affecting their satisfaction can affect the quality of health services and the health

of society. On the other hand, the moderating variable and psychological capital in nurses can have a significant impact on hope and life satisfaction and are appropriate targets for intervention. Therefore, the purpose of the current research is to solve the deficiencies and limitations of the existing scientific literature and to answer the question of whether the variable of self-compassion as a mediating factor affects the satisfaction of life in nurses by influencing fatigue.

CHAPTER 4:
Hypotheses

In general, nurses are typically required to work long hours and engage in various physical and mental activities. This may lead to a rise in acute or chronic fatigue and also impact their life satisfaction. While previous studies on life satisfaction and fatigue have focused on evaluating the contributions of organizational and occupational factors, limited information is available on the influence of the psychological component of self-compassion on fatigue in nurses and elevating the level of life satisfaction. Despite increasing evidence highlighting the role of self-compassion as an imperative component of mental health, no study has yet examined the importance of self-compassion in mitigating the effects of fatigue on nurses' life satisfaction. In light of what was said, the investigation is considered novel.

Based on reviewing the background:

• The fatigue variable has been used as a predictor index for the life satisfaction variable.

• The self-compassion variable was utilized as a mediating variable to examine how it affects life satisfaction in nurses by influencing fatigue.

4.1 General purpose

The main purpose of this study is to investigate the mediating effect of self-compassion on the relationship between fatigue and life satisfaction in nurses.

4.1.1 Specific goals

● Determine the association between fatigue and life satisfaction in nurses.

● Determine the association between self-compassion and fatigue in nurses.

● Determine the association between self-compassion and life satisfaction in nurses.

4.2 Hypothesis development

• H1. We hypothesize that fatigue is related to life satisfaction.
• H2. We hypothesize that self-compassion is related to life satisfaction.
• H3. We hypothesize that self-compassion is related to fatigue.
• H4. We hypothesize that self-compassion mediates on the relationship between fatigue and life satisfaction in nurses.

The theoretical model in Figure 1 proposes how these variables interact.
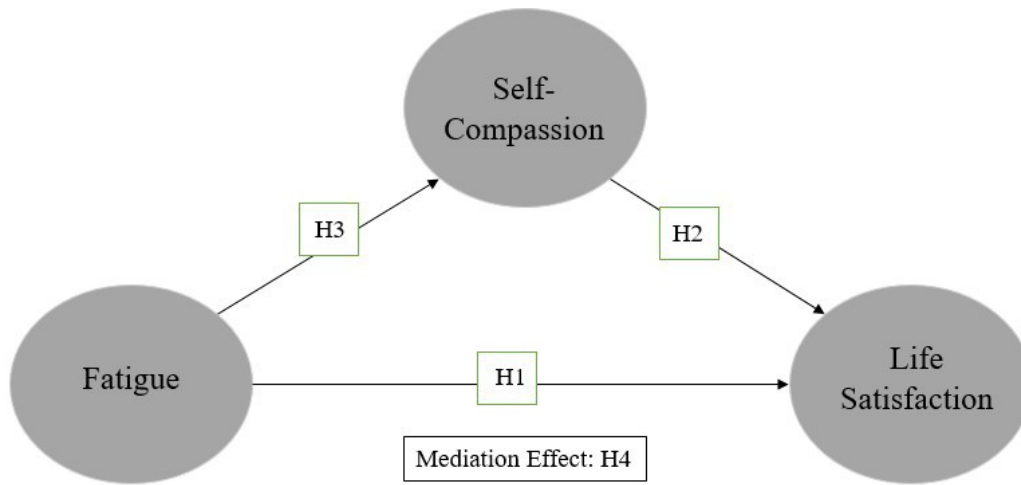
Figure 1. Theoretical framework structure

CHAPTER 5:
Methods

5.1 Sample

In this research, the study population consisted of registered nurses who were clinical nurses and nurses in leadership or administrative roles working in a public hospital in Iran's Isfahan. Inclusion criteria were nursing degree, at least one year of hospital work experience, and willingness to participate in the study. According to their statements, nurses with acute and chronic physical and mental illnesses were excluded. The sample size was determined using Cochran's formula for correlation studies with 95% confidence and 5% error (Snedecor & Cochran, 1989), which was estimated to be 177 nurses. The final sample size was increased to 196 people. The participants were selected using a simple random sampling method.

After the completeness and correctness of the questionnaires were verified, the results were analyzed. Of the 196 nurses investigated in this study, 80.6% (n= 158) were female, and the ages of most participants ranged between 26 and 35 years old (44.7% n=89). Participants were predominantly nurses working rotational night shifts (76.5% n=150), more than 90% (n=182) were staff nurses, and the highest mean years of work experience were lower at 5 years (33.7% n=67).

The demographic characteristics of participants are shown in Table 1.

Table 1. Respondent characteristics distribution

Characteristic	Frequency (*n*)	Percentage (%)
Gender		
Male	38	19.4
Female	158	80.6
Age Group		
20-25	31	15.8
26-35	89	45.4
36-45	60	30.6
46-54	11	5.6
More than 55	5	2.6
Marital Status		
Single	83	42.3
Married	100	51
Divorced	8	4.1
Other	5	2.6
Education		
Bachelor	177	90.3
Master	18	9.2

PhD	1	0.5
Work Pattern		
With night Shift	150	76.5
Only day shift	46	23.5
Role		
Staff Nursing	179	91.3
Head Nurse	10	5.1
Researcher	3	1.5
Consulting	2	1.0
Manager or supervisor	2	1.0
Work Experience		
Less than 5 years	66	33.7
Between 5 and 10 years	54	27.6
Between 11 and 20 years	55	28.1
Between 21 and 30 years	21	10.7

5.2 Scale

Data were collected using 4 psychometric instruments. Research tools included a demographic questionnaire; fatigue questionnaire, self-compassion questionnaire, and life satisfaction questionnaire (see Appendix 1).

5.2.1 Demographic Questionnaire

This questionnaire includes demographic information such as gender (male/female), age, marital status (single/married/divorced, etc.), education level (bachelor's degree, master's degree, doctorate), nursing experience (years), shift work (night work, day shift only) and position title (nurse, head nurse, nurse manager, supervisor, research nurse, trainers/counselors).

5.2.2 Fatigue Questionnaire

Fatigue was measured by the Chalder Fatigue Scale (Chalder et al., 1993), which assesses the symptoms of physical (items 1-7) and mental (items 8-11) fatigue of nurses. The questionnaire is composed of 11 items and each item is evaluated on a 4-point Likert scale (1 less than usual, 2 not more than usual, 3 more than usual, 4 much more than usual). Examples of items are: "I have a problem with fatigue" or "I have a slip of the tongue". In this research, the Persian version which has established validity and reliability was used (Nasri, 2004). In this study, the reliability of this questionnaire was $\alpha=0.893$ (Physical Fatigue scale: $\alpha=0.849$; Mental Fatigue scale: $\alpha=0.796$).

5.2.3 Self-Compassion Questionnaire

Self-compassion was assessed using the Self-Compassion Scale–Short Form developed by Raes et al. (2011). This scale has 12 items (items reverse: 1, 4, 8, 9, 11, 12) and scoring on a 5-point Likert scale varies from 1 = almost never to 5 = almost always. Various studies indicate that this tool has reasonable internal consistency and validity (Neff, 2016; Raes et al., 2011). In the Iranian sample, Cronbach's alpha scale was 0.68 (Sabzehara Langaroudi et al., 2014) and internal consistency was reported at 0.84 (Ghorbani et al., 2012). In the present study, the reliability of this questionnaire was α= 0.728 (acceptable). An example of items is: "When something painful happens, I try to take a balanced view of the situation".

5.2.4 Life Satisfaction Questionnaire

The Life Satisfaction Scale developed by Diner et al., (1985) was used to measure life satisfaction. This scale has 5 items and each item has a Likert score with 7 options from 1 (strongly disagree) to 7 (strongly agree). In the main version of the questionnaire, the reliability of the questionnaire was 0.82 by the test-retest method and the reliability by Cronbach's alpha was 0.87 (Diener et al., 1985). In the Iranian sample, the validity of the Life Satisfaction Scale using Cronbach's alpha method was 0.85 and 0.90 using the retest method (Tagharrobi et al., 2012). The reliability for Life Satisfaction in this study was α= 0.849. An example of items is: "My life is most respects in line with my ideals".

5.3 Procedures

In this study, data collection was conducted from February 2022 to May 2022. Before completing the questionnaires, eligible nurses who wanted to participate in the survey were given information about the study. They were informed that participation in the study was voluntary. The objectives of the research and the confidentiality of each participant's information were explained. An online questionnaire was designed to collect data. After coordination and obtaining permission from hospital management, the questionnaire link was published on the website of the nursing department. A number of questionnaires were also filled out in person at the hospital. This research was approved by the ethics committee of the Islamic Azad in Iran (IR.IAU.NAJAFABAD.REC.1400.186).

5.4 Statistical Analysis

Statistical analysis of the data was carried out with version 26 of IBM SPSS. Frequencies and percentages were calculated for qualitative variables (gender, age group, marital status, education, work pattern, and role work experience), and means and standard deviations were calculated for quantitative variables (fatigue, self-compassion, and life satisfaction). Pearson correlation was used to analyze the correlation between the variables.

This study adopted the partial least squares (PLS) method to verify the theoretical model and hypotheses. According to Sosik et al. (2009), PLS is a powerful method for evaluating the relationship paths between variables. More precisely, it can generate estimates of standardized regression coefficients for the paths between variables. Therefore, most researchers typically adopt this method to test their theoretical models and hypotheses. In this study, PLS analysis was performed using SmartPLS 3.0.

The validity and reliability of the constructs needed to be tested. In testing construct validity, factor loadings and average variance extracted (AVE) values were the primary indices. In establishing reliability, composite reliability (C.R.) and Cronbach's α were the primary indices. Regarding the requirements of the indices, according to Hasan and Ali (2007) and Hair et al. (2011), all the factor loadings for the same factor should exceed 0.5, the C.R. should exceed 0.7, the AVE must exceed 0.5, and Cronbach's α should exceed 0.7. All the indices satisfy the requirements of Hasan and Ali (2007) and Hair et al. (2011). Thus, the test results are acceptable. In addition to validity and reliability, the model fit should satisfy the requirement related to the recommendation value. In this study, the standardized root mean square residual (SRMR) was the main index of model fit, and it was lower than .010. According to Andrei et al. (2017), the SRMR is reported to be an approximate measure of model goodness of fit. Therefore, the SRMR was used as the main index of goodness of fit. In addition, to test mediating effect, a Bootstrap resampling method (5,000 re-samples) used.

CHAPTER 6:
Results

6.1 Descriptive Analysis

Correlation analyzes were performed between the different variables under study (Table 2). The analysis carried out with the Pearson correlation coefficient indicated positive and statistically significant correlations between fatigue and life satisfaction ($r = 0.396$; $p < 0.001$) and between fatigue and self-compassion ($r = 0.366$; $p < 0.001$). Furthermore, self-compassion was also positively related to life satisfaction ($r = 0.399$; $p < 0.001$).

Table 2. Descriptive statistics and inter-correlations of the variables

Variables	M	DS	1	2	3
1. Fatigue	2.68	0.58	-	0.366**	0.396**
2.Self -Compassion	3.22	0.46		-	0.399**
3. Life Satisfaction	4.33	1.34			-

**p<0.001

Table 3. Construct Reliability and Validity for reflective constructs

Constructs		Standardized loading	Cronbach's Alpha	Rho-a	CR	AVE
Fatigue	F1	0.609				
	F2	0.655				
	F3	0.808				
	F4	0.721	0.892	0.899	0.885	0.566
	F5	0.751				
	F6	0.805				
	F7	0.708				
	F8	0.804				
	F9	0.859	0.800	0.804	0.870	0.626
	F10	0.776				
	F11	0.721				
Self-Compassion	SC1	0.743				
	SC2	0.642				
	SC3	0.623				
	SC4	0.629				
	SC5	0.660				
	SC6	0.608	0.731	0.804	0.800	0.616
	SC7	0.666				
	SC8	0.6.44				
	SC9	0.731				
	SC10	0.749				
	SC11	0.689				
	SC12	0.714				

Constructs						
Life Satisfaction	LifSat1	0.805				
	LifSat2	0.858				
	LifSat3	0.785	0.852	0.859	0.895	0.632
	LifSat4	0.829				
	LifSat5	0.686				

Note: CR: composite reliability; AVE: average variance extracted.

6.2 Measurement Model

To analyze the reliability of all constructs, this study used Cronbach's alpha, Composite Reliability (CR), and the Dijkstra-Henseler Rho_A coefficient. As Table 3 shows, all values exceeded the 0.70 threshold value, so the reliability of the model was ensured. Furthermore, the standardized loadings should have a value equal to or greater than 0.70, loadings between 0.40 and 0.70 can be accepted if they do not lead to a strong deterioration of the model (Hair, Ringle, & Sarstedt, 2011). As can be seen from Table 3, all factor loadings ranged from 0.60 to 0.85 and all were significant at the 0.001 level.

Convergent validity was measured by the Average Variance Extracted (AVE). When the AVE is equal to or greater than 0.50 it means that the construct explains more than half of the variation of its components (Hair, Ringle & Sarstedt, 2011). In the present study, AVE the AVE was greater than 0.566, which is well above the acceptable value.

The square root of AVE was used to analyze discriminant validity. As Table 4 shows and in line with the Fornall-Larcker Criterion (Fornall & Larcker, 1981), the variance shared within a construct (AVE) exceeded the variance shared between constructs, confirming discriminant validity.

Table 4. Fornall-Larcker Criterion

Constructs	Fatigue	Self-Compassion	Life Satisfaction
Fatigue	**0.696**		
Self-Compassion	0.430	**0.521**	
Life Satisfaction	0.415	0.424	**0.795**

Note: The bold number is the square root of AVE. The bold numbers listed diagonally are the square root of the variance shared between the constructs and their measures. The off-diagonal elements are the correlations among the constructs. For discriminate validity, the diagonal elements should be larger than the off-diagonal elements.

The goodness of fit has been verified through the Standardized Root Mean Square Residual (SRMR) index for the saturated model, achieving an SRMR value of 0.083, which is below the maximum threshold of 0.10 (Benitez et al., 2020); and so has been the significance of the path coefficients through the bootstrapping process (10,000 subsamples) based on the confidence interval percentiles (Aguirre-Urreta & Rönkkö, 2018).

6.3 Structural model and hypotheses testing

The structural model was evaluated using the coefficient of determination (R^2), and hypotheses testing.

As observed in Table 5, the results show that fatigue (β= 0.286, p<0.001) and self-compassion (β= 0.301, p<0.001) affect life satisfaction in a positive and statistically significant way, confirming hypotheses H1 and H2. Furthermore, fatigue significantly influences self-compassion (β= 0.301, p<0.001), confirming hypothesis H3.

As Table 4 shows, the R^2 values of all the endogenous constructs are above the 0.10 threshold (Falk & Miller, 1992). In according to Cohen (1992), the size of the effect of Fatigue on Self-Compassion (f^2= 0.226) is moderate (0.15≤ f^2 <0.35), but the size of the Fatigue and the Self-Compassion on Life Satisfaction are weak.

Table 5. Direct effects on endogenous construct

Construct	Direct Effect	t-Value	PCI	f^2
Life Satisfaction (R^2= 0.246)				
H1: Fatigue	0.286**	3.692	[0.126, 0.427]	0.089
H2: Self-Compassion	0.301**	8.814	[0.139, 0.417]	0.098
Self-Compassion (R^2= 0.185)				
H3: Fatigue	0.430**	4.309	[0.304, 0.500]	0.226

PCI: Percentile Confidence Interval. Paths from hypotheses assessed by applying a one tailed test at 5% of significance level [5%, 95%]. Bootstrapping based n= 10,000 bootstrap samples. **p< 0.001, **p< 0.05.

With regards to the mediation effects, the results show the total effect is greater than the direct effects, which indicates the existence of mediation or indirect effects (Sarstedt et al., 2014). Following Nitzl et al. (2016), significant total mediation relationship is confirmed between Fatigue and Life Satisfaction through Self-Compassion (H4: β= 0.129; p< 0.001; PCI [0.052, 0.182]).

In summary, the hypotheses proposed in the theoretical model were empirically supported. Figure 2 summarizes the standardized regression coefficients and the proportions of the explained variance (R^2) as a whole. In this case, the verified model explains more than 24% of the variance of Life Satisfaction.
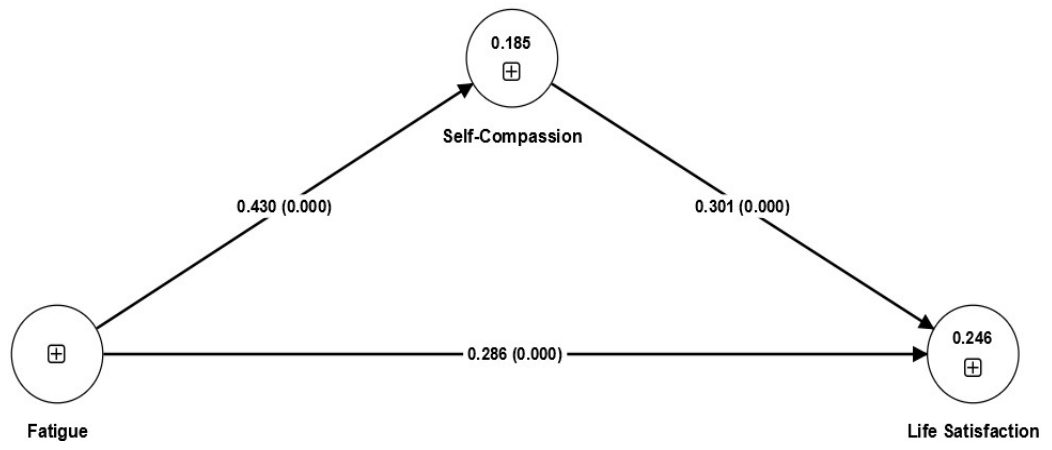
Fig. 2 Structural Model

CHAPTER 7: Discussions and Conclusions

7.1 Discussion

Based on the main purpose of the research, this study found that:

Self-compassion mediates the relationship between fatigue and life satisfaction in nurses. We suggest that practical applications and training to promote self-compassion as a psychological resource may contribute to increased life satisfaction in relation to fatigue among nurses.

Hypothesis 1 stated that Fatigue with life satisfaction in has a positive and statistically significant correlation.

The results of the present study showed that while fatigue may seem inherently negative, it can also have positive associations with life satisfaction. Despite the fact that these findings are different from other Iranian research results. They state that nurse fatigue reduces the physical and mental health of nurses, which can have a significant impact on the quality of life and overall satisfaction of nurses with life (Bazazan et al., 2019). Several factors may have contributed to our findings. One of the possible reasons is that considering past research findings have shown that engaging in different forms of activity, including physical, mental, and social activities, has a positive correlation with life satisfaction, although it also leads to fatigue. Generally, on days when people were more physically active, they experienced greater life satisfaction (An et al., 2020; Pengpid & Peltzer, 2019). Based on this, individuals who are highly satisfied with their lives may engage in more activities or have more responsibilities, which can lead to increased fatigue. On the other hand, undoubtedly, satisfaction with life is a positive phenomenon that can help individuals increase their effectiveness and performance. Based on this, individuals who are highly satisfied with their lives may engage in more activities or have more responsibilities, which can lead to increased fatigue. Kołtuniuk et al., (2021) found that nurses who experience high levels of life satisfaction tend to be more engaged, motivated, and productive at their work. They are also more likely to provide compassionate and effective care to patients, although more activity can be associated with fatigue (Kołtuniuk et al., 2021). Another similar research by Uchmanowicz et al., (2019) it has been revealed that such determinants as life satisfaction do not allow for developing an occupational burnout (Uchmanowicz et al., 2019).

Certainly here are a few more points to consider when discussing the positive relationship between fatigue and life satisfaction. According to studies, learning a skill, pursuing education, or taking on new responsibilities that challenge one's comfort zone can also result in fatigue. However, the sense of accomplishment and progress from personal growth efforts can contribute to increased life satisfaction. Overcoming challenges and expanding one's capabilities can lead to a greater sense of self-efficacy and fulfillment, even in the face of fatigue (Lamela & Figueiredo, 2023). As well, the findings of studies have shown that altruistic activities have positive effects on well-being and life satisfaction.

Engaging in volunteer work or helping others can also lead to fatigue, as it often involves investing time, energy, and effort. However, the act of making a positive difference in others' lives can outweigh temporary fatigue, leading to increased life satisfaction (Bjälkebring et al., 2021; Kahana et al., 2013). The nursing profession is widely recognized for its inherent helping nature, as nurses play a crucial role in providing care, support, and advocacy for patients and their families. Nursing's helping nature is deeply rooted in the profession's core values, which include compassion, empathy, altruism, and a commitment to promoting health and well-being (Hoeve, Jansen, & Roodbol, 2014). In this regard, in order to predict life satisfaction and job satisfaction in Iranian nurses, the results of studies show that there is a significant relationship between nurses' attitude scores with life satisfaction and altruism (Ghorbani, Salehabadi, Mahdavifar, & Rad, 2021).

Furthermore, while fatigue can significantly impact life satisfaction, it is not the sole or primary factor influencing overall life satisfaction. As mentioned earlier in Chapter 2, life satisfaction in nurses refers to a nurse's overall sense of happiness and fulfillment in their life, including their personal and professional experiences. It is a complex and multi-dimensional construct that encompasses a wide range of emotional, psychological, and physical factors (Öztürk & Karabulutlu, 2021). Thus, other factors, such as social support, financial security, physical health, mental health, relationships, and personal values, among others, can also play a crucial role in shaping an individual's life satisfaction. Consequently, life satisfaction is influenced by various subjective and objective factors, and fatigue is just one of the many potential contributors (Yılmaz & Arslan, 2013). In the context of nursing, Mirfarhadi et al (2013) in their research, they stated that life satisfaction can be influenced by a number of work-related factors, such as job stress, workload, pay and benefits, support from colleagues and superiors, and a positive work-life balance. It can also be impacted by personal factors such as health, relationships, and outside interests and activities (Mirfarhadi et al., 2013).

Moreover, fatigue plays a different predictive role for life satisfaction based on various factors, such as the duration and intensity of fatigue, individual coping strategies, and available resources for recovery and self-care. It's important to consider that the relationship between fatigue and life satisfaction may be influenced by individual differences and contextual factors. Some individuals may be more resilient to the effects of fatigue and may have better coping strategies, while others may be more vulnerable. For example, a nurse who is experiencing job stress or burnout may report lower levels of life satisfaction, while self-nurturing nurses or nurses who have a positive work-life balance and feel supported in their work, and have a positive work environment often report higher levels of life satisfaction (Nemcek & James, 2007).

However, chronic or severe fatigue, whether physical, mental, or emotional, can be detrimental to a nurse's well-being and life satisfaction. It can lead to decreased engagement in meaningful activities, reduced productivity, impaired physical and mental health, and

strained relationships, all of which can negatively impact overall life satisfaction (Demerouti et al., 2000). As a result, many factors can influence life satisfaction and fatigue in nurses, and the relationship between the two may not be straightforward. Further research is needed to better understand the complex interplay of factors that contribute to life satisfaction and how fatigue fits into this broader picture.

Hypothesis 2 stated that Self-Compassion is positively related to Life satisfaction.

Our second hypothesis was fully supported by the data and positive and statistically significant relationships were found between self-compassion and life satisfaction variables. A plurality of studies has concluded that self-compassion enhances and correlates with positive mind-states such as life satisfaction (Neff et al., 2008; Neely, et al., 2009; Jennings & Tan, 2014; Van Dam et al., 2011; Wei, et al., 2011; Mantelou & Karakasidou, 2017; Kim & Ko, 2018). More specifically, these results are consistent with empirical studies supporting that self-compassion is positively related to life satisfaction. For instance, a study focusing on the role of self-compassion on life satisfaction and hope, in which the results showed that self-compassion, was positively associated with hope and life satisfaction (Yang et al., 2016). In another study, Durkin et al conducted a pilot study in 2016 to examine the relationship between self-compassion, self-judgment, self-kindness, compassion, quality of professional life, and well-being among UK community nurses. They found that when community nurses are more self-compassionate, they have more well-being and life satisfaction (Dworkin et al., 2016). From the positive psychological perspective as a personal character, self-compassion is an individual's internal positive strength and resources, which is an important determinant of subjective well-being and life satisfaction (Seligman, 2002).

According to a recent study conducted by Sanso et al in 2020 among Spanish nurses, self-care and self-compassion were the most significant predictors of nurses' professional quality of life. Finally, they concluded that there is a positive relationship between professional quality of life and nurses' life satisfaction (Sanso et al., 2020). Furthermore, in 2021, Li et al published their study entitled Self-compassion and life-satisfaction among Chinese self-quarantined residents during the COVID-19 pandemic. This study probed the relationship between self-compassion and life satisfaction among quarantined residents during the 14-day quarantine period during COVID-19. The results showed that self-compassion was significantly and positively correlated with life satisfaction (Li et al., 2021).

Collectively, these studies suggest that self-compassion is an important factor in promoting life satisfaction and well-being for nurses. By practicing self-compassion, nurses may be better equipped to handle the stress and challenges of their profession, leading to greater satisfaction in life. Self-compassion acts as a buffer against the effects of negative events. People who achieve high self-compassion have the tendency to make more positive automatic thoughts (Arimitsu & Hofmann, 2015), and that consequently results in higher levels of life satisfaction. Therefore, self-compassion may be a core psychological asset for

nurses, serving as a psychological and emotional flexibility factor when adjusting to obstacles in life and at work.

Hypothesis 3 stated that Self-Compassion is positively related to Fatigue.

The findings of our study show that there is a positive and significant relationship between self-compassion and fatigue. These results were contrary to the findings of the study by Finley et al., (2015); they stated that self-compassion features as an internal resource that reduces caregiver fatigue (Finley et al., 2015). As well, Van der Meulen et al., (2021) in research with the title Mindfulness and self-compassion as mediators of the Mindful2WorkTraining on perceived stress and chronic fatigue found that during and after the training, increases in mindfulness led to more self-compassion, which in turn led to less stress and after the training also to less fatigue.

This finding could be explained by a variety of factors. Multifaceted relationships are likely to exist between self-compassion and fatigue. Self-compassionate nurses are more likely to provide high-quality, patient-centered care and have more positive relationships with their patients, which can lead to higher levels of physical and mental fatigue. As mentioned in the background of the research, self-compassion is crucial for nurses since it is viewed as a positive quality among nurses and is related to nursing competency (Kurebayashi, 2020). Several studies support this finding that when caregivers are more self-compassionate, they may be better able to regulate their emotions and remain attuned to their patient's needs and concerns, and be better able to maintain empathy and compassion for their patients. Although, taking care of patients in healthcare settings may be physically and mentally demanding, and fatigue is a common challenge for nursing professionals (Bush, 2009; P Gilbert, 2009; Mills et al., 2015; Neff & Pommier, 2013; Singh et al., 2018; Wiklund & Wagner, 2013).

On the other hand, it is possible that this finding is due to: Self-compassion may serve as a coping mechanism for dealing with fatigue. Individuals who experience high levels of physical and mental fatigue may turn to self-compassion practices as a way to cope with their symptoms. This could result in a positive relationship between self-compassion and fatigue, as higher levels of fatigue may trigger higher levels of self-compassion as a coping response. Based on new research self-compassion can positively influence coping mechanisms by promoting emotional regulation, mindfulness, self-care, self-acceptance, and social support. Therefore, it can empower individuals to cope with challenges in healthier, more adaptive ways (Bluth & Neff, 2018). Furthermore, Allen & Leary, (2010) in a meta-analysis study, examined the relation of self-compassion to adaptive and maladaptive coping strategies. The results have shown a positive correlation between self-compassion and adaptive coping and a negative correlation between self-compassion and maladaptive coping (Allen & Leary, 2010). Thus, self-compassion may be a powerful coping mechanism for nurses who experience fatigue, which is a common challenge in the nursing profession.

In addition, self-compassion can be a valuable resource for enhancing resilience among nurses. Resilience can help individuals enabling to cope with challenges, and adversities in a more adaptive and effective manner and manage fatigue by promoting adaptive coping strategies and reducing the negative impact of stress (Lefebvre et al., 2020). In this regard, the results of Qiu et al.'s (2020) study indicated that resilience was negatively associated with physical and mental fatigue. Resilient individuals are better equipped to bounce back from fatigue-inducing situations, such as long work hours, caregiving responsibilities, or other stressors. They may also have better problem-solving skills and social support networks, which can help them address the underlying causes of fatigue and find ways to mitigate it (Qiu et al., 2020).

It's important to highlight that the relationship between self-compassion and fatigue is likely complex and multifaceted and may vary depending on the context, individual differences, directionality, and potential underlying mechanisms. While our study may have found a positive relationship, it's essential to acknowledge that other factors may be at play, and further research is needed to fully understand the nature of this relationship. It could be that higher levels of self-compassion contribute to higher levels of fatigue, or it could be that higher levels of fatigue lead to increased self-compassion as a coping mechanism. Longitudinal or experimental research designs can help elucidate the directionality of the relationship.

Hypothesis 4 stated that Self-compassion plays a mediating role in the relationship between Fatigue and Life satisfaction.

Investigating the mediating role of self-compassion in the relationship between fatigue and life satisfaction is an important part of our study based on the main objective of this research. Our finding indicates that self-compassion on the relationship between fatigue variables and life satisfaction in nurses as a mediator may contribute to nurses' life satisfaction. With regards to the mediation effects, the results show the total effect is greater than the direct effects, which indicates the existence of mediation or indirect effects. However, results of the current study are correlational and randomized controlled study of the mediating role of self-compassion is needed to prove causation.

The results of recent studies that explored self-compassion as a mediator enhance our understanding of its possible role. Among them, in a study by Kotera et al. (2021) the full mediation of self-compassion on sleep and mental health in UK nursing students was investigated. According to the results of their research, the importance of self-compassion was highlighted because self-compassion completely mediated the impacts of sleep on mental health problems and self-compassion can protect nursing students from psychological distress during sleep deprivation (Kotera et al., 2021). In another study by Satake & Arao (2020) the results shown that self-compassion mediates the association between conflict about ability to practice end-of-life care and burnout in emergency nurses. They stated that since negative aspects of self-compassion mediated the relationship between conflict and

burnout (excluding reduced personal accomplishment) to prevent burnout, it is necessary to screen for nurses with low self-compassion and to provide opportunities to change their cognitive recognition and disclose their conflicts (Satake & Arao, 2020). Furthermore, the results of Fulton's (2018) study confirmed self-compassion as a mediator of mindfulness and compassion for others among 152 master's-level counseling interns (Fulton, 2018). Chang et al. (2017), in a study involving 331 university students in the Southeastern United States, suggested that specific aspects of self-compassion (common humanity, mindfulness, and over-identification) mediate the relationship between negative life events and symptoms of depression (Chang et al., 2017). In a similar study in Iran, Rajabi & Maghami (2015) showed that self-compassion mediates between anxiety and avoidant attachments and mental well-being both on direct paths and indirect paths.

Thus, considering this research background knowledge, we propose some points for further discussion: Nurses, who are experiencing fatigue, by practicing self-compassion, can take rest when needed, engage in self-care activities, and set realistic expectations for themselves. By offering comfort and care to oneself, they can nurture their physical and mental well-being, which can contribute to better recovery from fatigue and improved life satisfaction. Furthermore, nurses can benefit from seeking support from colleagues, friends, or family members when they are feeling fatigued. Self-compassion involves recognizing when one needs support and being willing to ask for help without feeling guilty or ashamed. Connecting with others and sharing one's experiences can provide validation, empathy, and understanding, which can help nurses cope with fatigue. As well, self-compassion involves acknowledging and accepting one's experiences, including fatigue, without judgment. It allows nurses to acknowledge their physical and mental fatigue with kindness and understanding, rather than criticizing themselves for feeling tired or depleted. Nurses may feel guilty or blame themselves when they experience fatigue, thinking they should be able to do more or push through. Self-compassion can help individuals manage these self-critical thoughts by offering a kinder and more understanding inner voice. It involves challenging self-critical thoughts with self-compassionate responses, such as recognizing that fatigue is a normal human experience, and offering oneself words of comfort and encouragement, that they are human beings with their own needs and limitations, and it's not a sign of weakness. This can help nurses break the cycle of negative self-talk, reduce self-blame, and cultivate a more positive and compassionate self-perception, as a result, this can lead to enhanced life satisfaction. In summary, when nurses experience fatigue, it may require additional effort and self-awareness to practice self-compassion, as their internal resources may be depleted. Taking steps to address and manage fatigue, such as getting adequate rest, practicing self-care, seeking support, and managing workload or caregiving responsibilities, can help to support self-compassion even in the face of fatigue. This can help to recovery from fatigue and improve life satisfaction.

7.2 Conclusions

7.2.1 Contributions to literature

Our research findings have significant implications for both research and practice. From a theoretical standpoint, the research contributes to the growing body of literature on the beneficial effects of self-compassion on life satisfaction. It adds to the understanding of how self-compassion can serve as a psychological resource that can protect individuals from the detrimental effects of fatigue on their overall life satisfaction. We found evidence that engaging in self-compassion during times of fatigue might provide individuals with a supportive and understanding inner voice that can help them cope with it more effectively. Self-compassion might be allows nurses by acknowledging and accepting fatigue, offering comfort and care to oneself, managing self-critical thoughts, cultivating emotional well-being, and fostering resilience, contribute to improved life satisfaction, especially during times of fatigue.

The practical implications of this research are noteworthy. Interventions that promote self-compassion could be incorporated into various settings, such as stress management programs, mental health interventions, and wellness initiatives. Educating nurses on the importance of self-compassion and providing tools to cultivate self-compassion skills may help them effectively cope with fatigue and ultimately enhance their overall life satisfaction. Practicing self-compassion as a skill through mindfulness-based self-compassion exercises, seeking support from professionals or trusted individuals, and incorporating self-compassionate responses in daily life can be beneficial in enhancing self-compassion and its positive effects on life satisfaction. Remember, self-compassion is a continuous practice that requires self-awareness, self-kindness, and mindfulness. To effectively manage fatigue and advance their life satisfaction, it is crucial for nurses to put their own needs first and engage in self-compassion practices. It is also essential for nurses to remember that they are human beings with their own needs and limitations, and practicing self-compassion is not only crucial for their well-being, but also for their ability to provide high-quality care to their patients. By treating themselves with the same kindness and understanding that they extend to others, nurses can promote their own resilience, prevent burnout, and continue to make a positive impact in their profession.

7.2.2 Answering the research question

1. The findings of this research support the hypothesis that fatigue and life satisfaction are positively correlated. An explanation of why this correlation might exist among nurses could be that while fatigue may initially seem like a negative factor, it can also be associated with positive outcomes, depending on the context and the nurse's perception. For example, it could be that nurses who are more fatigued are more engaged in meaningful activities, pursuing personal growth, helping others, and maintaining self-care practices can

all contribute to increased life satisfaction, despite experiencing fatigue. The study highlights the need for further research into fatigue and its impact on life satisfaction.

2. The finding of this research confirms the hypothesis that there is a correlation between self-compassion and life satisfaction. In other words, nurses who report higher levels of self-compassion also tend to report higher levels of life satisfaction. Self-compassion may be a core psychological asset for nurses, serving as a psychological and emotional flexibility factor when adjusting to obstacles in life and at work. However, it is important to note that correlation does not necessarily imply causation. Further research is needed to better understand the relationship between these two constructs and to explore the potential mechanisms underlying this association.

3. The findings of this research underscore that there is a positive correlation between self-compassion and fatigue. This association among nurses may be explained by the fact that nurses who are more self-compassionate may feel a greater sense of responsibility to their patients, leading them to push themselves harder and work longer hours, which could contribute to increased fatigue levels. Alternatively, nurses who are experiencing high levels of fatigue may turn to self-compassion as a coping mechanism, which could lead to an increase in self-compassionate behaviors. However, further research would be needed to explore these potential explanations in more depth.

4. The findings of this research provide compelling evidence that self-compassion serves as a significant mediator in the relationship between fatigue and life satisfaction. Self-compassion appears to act as a buffer, helping nurses cope with fatigue challenges and demands and preventing significant life satisfaction declines. Cultivating self-compassion may be a valuable strategy for nurses to cope with fatigue and increase life satisfaction. Future research and practical applications to promote self-compassion as a key factor in psychological well-being and its effects on life satisfaction seem necessary.

7.2.2.1 Where do we move from here?

In the context of nursing, it is important to recognize that life satisfaction is a multifaceted construct that can be influenced by a range of factors. Nurses play a critical role in supporting patients and promoting overall well-being of society. So understanding the various factors that impact their life satisfaction is essential to improving this group's life satisfaction. The findings of this study can be a starting point for future research and a basis for researching other effective methods of optimizing nurses' life satisfaction and identifying factors affecting it.

Although fatigue has been shown to negatively affect life satisfaction in nurses, it is likely that other factors, such as stress, social support, and personal values, also play a role. It is important not to overlook other potential contributors, as these may also be important targets for interventions aimed at improving satisfaction with life. We want to emphasize

that while fatigue is a relevant variable, it is not the only factor that contributes to life satisfaction, and that exploring other potential factors is essential for a more complete understanding of nurse's life satisfaction. It is possible that other variables, such as social support, income level, or personality traits, may have an impact on life satisfaction as well. Future research should explore these potential factors and their interplay with life satisfaction to gain a more comprehensive perspective of how nurses experience it and explore a wide range of potential factors beyond just fatigue.

Results from this study expand our knowledge of the potential mediating role of self-compassion in increasing nurse life satisfaction. Thus we hope that the findings of this research can be a suitable basis and guide for Investigating further in this field while creating interest in other researchers. Researchers could extend the study by examining the role of other variables that may influence the relationship between fatigue and life satisfaction in nurses, such as job demands, social support, or coping strategies. Furthermore, these findings may be used by researchers to develop and test interventions aimed at improving self-compassion or reducing fatigue in nurses, such as mindfulness-based interventions, cognitive-behavioral therapy, or organizational-level interventions. The results could be used to contribute to the development of theoretical frameworks or models that explain the relationships between fatigue, self-compassion, and life satisfaction in nurses, and to test these models using alternative samples or methods. In addition, the findings may be used to inform policy or practice in healthcare settings by promoting self-compassion and reducing fatigue in nurses, which could have positive implications for both the well-being of nurses and the quality of patient care. Finally, future investigation should examine the effectiveness of self-compassion psychological skills interventions in improving nurses' life satisfaction. These are just a few examples of potential directions that researchers could take based on the results of the study.

Ultimately, the key message is that life satisfaction is a complex construct influenced by various factors. Researchers need to consider a broad range of variables to gain a more comprehensive understanding of what contributes to overall nurses' life satisfaction. By acknowledging this complexity and encouraging more nuanced investigations, we can advance our insight into how to promote nurses' life satisfaction.

7.3 Limitations and Future Research

It is pertinent to note that this research has some limitations that will affect the obtained results. During the study, we tried to remove these limitations as much as possible. However, it is desired that future studies will have possible limitations resolved. Considering the workload of nurses working in Iranian hospitals, not having enough time to fill out the questionnaire was one of the limitations of the research, which was relatively controlled by choosing the right time and giving the opportunity. On the other hand the study was conducted with a sample of nurses from a specific geographic region or healthcare setting,

which may limit the generalizability of the findings to other populations of nurses working in different contexts. To increase the generalizability of the findings, researchers could conduct a similar study with a more diverse sample of nurses working in different healthcare settings or geographic regions. Additionally, researchers could replicate the study with a larger or more diverse sample to increase the applicability of the findings and confirm the robustness of the mediation model. Specifically, we used a cross-sectional design, which only allows for associations between variables to be examined at one point in time, limiting the ability to establish causal relationships. Future research could employ longitudinal designs or experimental methods to further investigate the causal nature of the relationship between self-compassion, fatigue, and life satisfaction.

The study relied on self-reported measures for fatigue, self-compassion, and life satisfaction, which may be subject to response bias and may not accurately capture the constructs being measured. Our study only examined the relationship between fatigue, self-compassion, and life satisfaction, without taking into account control variables that could also affect these outcomes. It also failed to account for potential confounding variables that could affect the relationship between fatigue, self-compassion, and life satisfaction, such as job stress or personal factors. Future studies could investigate the potential mediating pathways between fatigue, self-compassion, and life satisfaction, by examining the role of other variables, such as job stress, burnout, or emotional regulation, in the mediation model. The study did not have established the directionality of the relationship between fatigue, self-compassion, and life satisfaction. It is possible that life satisfaction and self-compassion could also affect fatigue levels. Despite this, the researchers tested a specific mediation model. To provide stronger evidence of mediation, researchers could use alternative approaches, such as structural equation modeling or moderated mediation that allow for more rigorous testing of the mediation hypothesis. While mediation analysis can provide insight into the mechanisms underlying the relationship between variables, it is important to note that mediation does not imply causality. Finally, future studies should investigate self-compassion interventions in order to investigate its effectiveness among nurses in order to improve life satisfaction.

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Demographic Questionnaire

1	Gender:	
		Female
		Male

2	Age:	
		20 -25
		26-35
		36-45
		46-54
		≥ 55

3	Marital status:	
		Single
		married
		divorced
		other cases

4	Education:	
		Bachelor's degree
		Master's degree
		doctorate

5	Work Experience:	
		< 5
		5-10
		11-20
		21-30

6	Work pattern:	
		only day shift
		with night shift

7	The Nursing Role of Nursing :	
		Nursing
		Head Nurse
		Manager Nursing Or supervisor
		Nursing Researcher (education Department)
		Instructor
		Consulting

8	I have a problem with fatigue.	
		Much less than usual
		Less than usual.
		More than usual.
		Much more than usual.

Chalder Fatigue Scale

1   I have a problem with fatigue.

             Much less than usual
             Less than usual.
             More than usual.
             Much more than usual.

2   I need more rest.

             Much less than usual
             Less than usual.
             More than usual.
             Much more than usual.

3   I feel drowsy and bored.

             Much less than usual
             Less than usual.
             More than usual.
             Much more than usual.

4   I have trouble getting started

             Much less than usual
             Less than usual.
             More than usual.
             Much more than usual.

5   Reduce muscle strength.

             Much less than usual
             Less than usual.
             More than usual.
             Much more than usual.

6   I feel weak.

             Much less than usual
             Less than usual.
             More than usual.
             Much more than usual.

7   I have problems concentrating.

             Much less than usual
             Less than usual.
             More than usual.

Much more than usual.

8   I have a slip of the tongue.
                Much less than usual
                Less than usual.
                More than usual.
                Much more than usual.

9   I have problems finding the right words.
                Much less than usual
                Less than usual.
                More than usual.
                Much more than usual.

10 Lack of energy.
                Much less than usual
                Less than usual.
                More than usual.
                Much more than usual.

11 Memory weakness.
                Much less than usual
                Less than usual.
                More than usual.
                Much more than usual.

Self-compassion scale short (SCS-SF)

1   When I fail at something important to me I become consumed by feelings of inadequacy.
                Almost never
                Rarely
                Sometimes
                Most of the time
                Almost always

2   I try to be understanding and patient towards those aspects of my personality I don't like.
                Almost never
                Rarely

Sometimes

Most of the time

Almost always

3   When something painful happens I try to take a balanced view of the situation.

Almost never

Rarely

Sometimes

Most of the time

Almost always

4   When I'm feeling down, I tend to feel like most other people are probably happier than I am.

Almost never

Rarely

Sometimes

Most of the time

Almost always

5   I try to see my failings as part of the human condition.

Almost never

Rarely

Sometimes

Most of the time

Almost always

6   When I'm going through a very hard time, I give myself the caring and tenderness I need.

Almost never

Rarely

Sometimes

Most of the time

Almost always

7   When something upsets me I try to keep my emotions in balance.

Almost never

Rarely

Sometimes

Most of the time

Almost always

8   When I fail at something that's important to me, I tend to feel alone in my failure

Almost never

Rarely

Sometimes

Most of the time

Almost always

9   When I'm feeling down I tend to obsess and fixate on everything that's wrong.

Almost never

Rarely

Sometimes

Most of the time

Almost always

10   When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.

Almost never

Rarely

Sometimes

Most of the time

Almost always

11   I'm disapproving and judgmental about my own flaws and inadequacies.

Almost never

Rarely

Sometimes

Most of the time

Almost always

12   I'm intolerant and impatient towards those aspects of my personality I don't like.

Almost never

Rarely

Sometimes

Most of the time

Almost always

Life Satisfaction Questionnaire (SWLS)

1   My life is in most respects in line with my ideals.
- I completely disagree
- I disagree
- I disagree to some extent
- Neither agree nor disagree
- I agree to some extent
- I agree
- I completely agree

2   My living conditions are excellent.
- I completely disagree
- I disagree
- I disagree to some extent
- Neither agree nor disagree
- I agree to some extent
- I agree
- I completely agree

3   I am satisfied with my life.
- I completely disagree
- I disagree
- I disagree to some extent
- Neither agree nor disagree
- I agree to some extent
- I agree
- I completely agree

4   So far I have achieved what I wanted in life.
- I completely disagree
- I disagree
- I disagree to some extent
- Neither agree nor disagree
- I agree to some extent
- I agree
- I completely agree

5   If I could go back in life I would change almost nothing
- I completely disagree
- I disagree
- I disagree to some extent
- Neither agree nor disagree
- I agree to some extent
- I agree
- I completely agree