

# Rizični i zaštitni čimbenici psihološke dobrobiti kod žena koje su proživjele iskustvo spontanog pobačaja

## */ Risk and Protective Factors of Psychological Well-Being in Women Who Experienced Miscarriage*

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Majčinstvo je jedna od ključnih uloga u životu većine žena, no nažalost, oko 20 % svih trudnoća završi spontanom pobačajem. Osnovni cilj ovog rada bio je istražiti doprinose rizičnih (ponovljeni pobačaji, vrijeme proteklo od spontanog pobačaja, procjena negativnog utjecaja spontanog pobačaja na svakodnevni život, procjena uznemirenosti nakon spontanog pobačaja) i zaštitnih čimbenika (različite strategije suočavanja, socijalna podrška partnera i okoline, te kvaliteta bračne komunikacije) simptomima depresivnosti, anksioznosti i stresa, te općem zadovoljstvu životom. U istraživanju su sudjelovale 152 sudionice koje su proživjele iskustvo spontanog pobačaja (prije 24. tjedna trudnoće). Sudionice su u prosjeku imale 33 godine (SD = 6,73), dok je vrijeme proteklo od posljednjeg spontanog pobačaja iznosilo 3,39 godine (SD = 4,77) s rasponom od tjedan dana do 28 godina. Korišteni su mjerni instrumenti koji obuhvaćaju suočavanje sa stresom, socijalnu podršku, kvalitetu bračne komunikacije, zadovoljstvo životom, depresivnost, anksioznost i stres. Nalazi pokazuju da je viša gestacijska dob fetusa u trenutku gubitka trudnoće negativno povezana sa zadovoljstvom životom, a što je duže razdoblje od spontanog pobačaja, prisutno je manje simptoma depresivnosti, anksioznosti i stresa, uz veće zadovoljstvo životom. Također, negativan utjecaj spontanog pobačaja na svakodnevni život povezan je s lošijom psihološkom dobrobiti. Regresijskim analizama utvrđeno je da je korištenje izbjegavajućih strategija suočavanja značajan prediktor psihološke dobrobiti (pozitivan prediktor anksioznosti, stresa i depresivnosti, odnosno negativan zadovoljstva životom). Kvaliteta bračne komunikacije negativan je prediktor depresivnosti, anksioznosti i stresa, odnosno pozitivan prediktor zadovoljstva životom. Dodatno, niže razine stresa uz veće zadovoljstvo životom imaju sudionice koje percipiraju više socijalne podrške od okoline. Subjektivna procjena zdravstvenog stanja pokazala se značajnim prediktorom mjera psihološke dobrobiti. Istraživanje, između ostalog, ukazuje da je psihološka dobrobit žena koje su doživjele spontani pobačaj najugroženija neposredno nakon samog događaja iz čega proizlazi potreba za ciljanim intervencijama.

*/ Motherhood is one of the key roles in the lives of most women, however, approximately 20% of all pregnancies unfortunately end in miscarriage. The main aim of this paper was to explore the contributions of risk (recurrent miscarriages, time passed since a miscarriage, assessment of the negative impact of miscarriage on everyday life, assessment of distress experienced after miscarriage) and protective factors (various coping strategies, social support received from the partner and the environment, and the quality of marital communication) to the symptoms of depression, anxiety and stress, as well as to life satisfaction in general. A total of 152 participants who have experienced miscarriage (before the 24th week of pregnancy) took part in the study. The average age of the participants was 33 years (SD = 6.73), while the time passed since the last miscarriage was 3.39 years (SD = 4.77) with a range from one week to 28 years. The measuring instruments used included coping with stress, social support, quality of marital communication, life satisfaction, depression, anxiety and stress. The findings indicate that higher gestational age of the fetus at the time of pregnancy loss is negatively associated with life satisfaction, and the more time passes since the miscarriage the fewer are the symptoms of depression, anxiety and stress, with increasing life satisfaction. Furthermore, the negative impact of miscarriage on everyday life is associated*

with poorer psychological well-being. It was determined through regression analyses that the use of avoidance coping strategies is a significant predictor of psychological well-being (a positive predictor of anxiety, stress and depression, i.e. negative predictor of life satisfaction). Marital communication quality is a negative predictor of depression, anxiety and stress, i.e. positive predictor of life satisfaction. In addition, lower stress levels, along with higher life satisfaction, were observed in participants who perceived more social support from their environment. The subjective health status assessment proved to be a significant predictor of psychological well-being measures. Among other things, this study indicates that the psychological well-being of women who experienced a miscarriage is most at risk immediately after the event, thus creating the need for targeted interventions.

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## UVOD

Spontani pobačaj opisuje se kao neželjeni gubitak trudnoće prije 20. tjedna trudnoće ili gubitak ploda tjelesne mase manje od 500 grama (1). Istraživanja pokazuju da otprilike 20 % svih trudnoća završi spontanom pobačajem unutar prvih 22 tjedna, što čini rani gubitak trudnoće najčešćom opstetričkom komplikacijom (2). Podatci o prevalenciji spontanog pobačaja ukazuju da stopa spontanog pobačaja raste s godinama pri čemu je oko 27 % kod žena u dobi između 25 i 29 godina, dok doseže oko 40 % kod žena u dobi od 40 godina, te do 75 % kod žena od 45 godina ili starijih. Rizični čimbenici uključuju dob, pušenje, konzumaciju droga i alkohola te lošu kontrolu kroničnih poremećaja kao što su dijabetes i hipertenzija (3,4). Ovom događaju mogu doprinijeti različiti uzroci uključujući virusne infekcije, kromosomske poremećaje i probleme s lutealnim razdobljem. Često ostaje nejasnim pravi uzrok spontanog pobačaja, što dodatno otežava situaciju mnogim ženama (5). Naime,

## INTRODUCTION

Miscarriage is described as an unwanted loss of pregnancy before the 20th week of gestation or the loss of a fetus weighing less than 500 g (1). Studies have shown that approximately 20% of pregnancies end in miscarriage within the first 22 weeks, which makes early pregnancy loss the most common obstetric complication (2). Data on the prevalence of miscarriages indicate that the miscarriage rate increases with age, amounting to approx. 27% among women between 25 and 29 years of age, reaching approx. 40% among 40-year-old women and up to 75% among women 45 years old or older. Risk factors include age, smoking, drugs and alcohol consumption, and poor control of chronic disorders such as diabetes and hypertension (3,4). Other factors can also contribute to these events, including viral infections, chromosomal abnormalities and problems with the luteal phase. The real cause of a miscarriage often remains unclear, which makes the situation even more difficult for many women (5). More precisely, in such circumstances the parents

u tim okolnostima roditelji sami konstruiraju ideje o uzroku, pri čemu prema nekim podatcima više od polovice osjeća osobnu krivnju (6). Nadalje, bez jasnog uzroka, žene često ne mogu postići osjećaj zatvaranja ili razumijevanja svog gubitka, što može produljiti emocionalnu bol i tugu te povećati razine anksioznosti i nesigurnosti u pogledu budućih trudnoća (7). Spontani pobačaj može biti izuzetno stresno iskustvo kako za ženu tako i za njezinog partnera (8-10). Reakcije žena variraju i uključuju osjećaje olakšanja, praznine, usamljenosti i krivnje. Međutim, tugovanje i osjećaj krivnje mogu trajati i godinama nakon spontanog pobačaja. Gubitak trudnoće može imati dugoročne negativne posljedice uključujući povećan rizik za samoubojstvo kod žena koje su ga doživjele (10-12).

## Mentalno zdravlje majki nakon spontanog pobačaja

Istraživanja ukazuju na vezu između iskustva spontanog pobačaja i povećane anksioznosti, depresivnosti te visokih razina psihološke uznemirenosti (13). Zanimljivo je da i do 6 mjeseci nakon pobačaja mnoge žene i dalje pate od povišenih razina anksioznosti, te su pod povećanim rizikom za razvoj opsesivno kompulzivnog poremećaja i posttraumatskog stresnog poremećaja (14,15). Nadalje, žene često doživljavaju intenzivniju tugu i veći broj simptoma depresivnosti nakon pobačaja u usporedbi sa svojim partnerima (16). Dodatno, anksioznost i depresivnost mogu egzistirati čak i nakon rođenja drugog zdravog djeteta (17). Žene koje su proživjele gubitak trudnoće često izvještavaju o nižem zadovoljstvu životom u usporedbi s onima koje nisu imale spontani pobačaj (18).

## Stresni životni događaji i važnost socijalne podrške

Prema transakcijskoj teoriji stresa i suočavanja (19) stres se definira kao izloženost podražajima koji se procjenjuju kao štetni, prijeteći ili

construct their own ideas about the cause, and according to some data, more than half of them feel personal guilt (6). Furthermore, without a clear cause, women often cannot achieve a sense of closure or understanding with regard to their loss, which can prolong emotional pain and sadness, and can increase the levels of anxiety and uncertainty when it comes to future pregnancies (7). Miscarriage can be an extremely stressful experience both for the woman and her partner (8-10). Women's reactions vary and include feelings of relief, emptiness, loneliness and guilt. Feelings of grief and guilt, however, can last for a long time, even years after the miscarriage. Pregnancy loss can have long-term negative consequences, including an increased risk of suicide in women who have experienced it (10-12).

## Mental health of mothers after a miscarriage

Studies indicate that there is a strong link between the experience of miscarriage and increased anxiety, depression and high levels of psychological distress (13). Interestingly, even up to six months after the miscarriage, many women still suffer from increased anxiety levels, and are at a higher risk of developing obsessive compulsive disorder and posttraumatic stress disorder (14, 15). Furthermore, women often experience more intense grief and more symptoms of depression after a miscarriage compared to their partners (16). Anxiety and depression can also exist even after giving birth to a second, healthy child (17). Women who have experienced pregnancy loss often report lower life satisfaction compared to those who have not experienced a miscarriage (18).

## Stressful life events and the importance of social support

According to the Transactional Theory of Stress and Coping (19), stress is defined as exposure to stimuli that are appraised as harmful, threatening or challenging, and which exceed an indi-

izazovni, a koji nadilaze sposobnost pojedinca da se s njima suoči. Prema literaturi (20) šest je karakteristika koje su zajedničke svim stresnim događajima i koje negativno utječu na život pojedinca. Valentnost se odnosi na poželjnost ili nepoželjnost stresnog događaja, pri čemu je nepoželjnost spontanog pobačaja povezana s povišenim razinama uznemirenosti i teškoćama u prihvaćanju gubitka. Suprotno tome, žene koje nisu željele trudnoću često doživljavaju samo fizičku, a ne i emocionalnu traumu (često osjećaju olakšanje) (21). Kontrolabilnost stresnog događaja odnosi se na percepciju pojedinca da je svojim postupcima izazvao stresnu situaciju, pri čemu žene sklone samookrivljanju često izvještavaju o povišenim razinama anksioznosti i depresivnosti (22). Nepredvidljivost također pridonosi povišenim razinama psihološke uznemirenosti. Od ostalih značajnih karakteristika ističu se magnituda (razina negativne promjene u svakodnevnim aktivnostima), centralnost (prijetnja za postizanje ciljeva) te potencijalni fizički umor (20,23).

U kontekstu suočavanja s gubitkom djeteta istraživanja pokazuju da žene koje nemaju djecu često izvještavaju o više simptoma depresivnosti i anksioznosti (10,24). Što se tiče stilova suočavanja, dva su glavna pristupa: suočavanje usmjereno na problem i suočavanje usmjereno na emocije. Suočavanje usmjereno na problem uključuje aktivnosti koje mijenjaju ili uklanjaju stresore, dok se suočavanje usmjereno na emocije odnosi na smanjivanje emocionalne napetosti i negativnih emocija (19). Emocionalno suočavanje može imati pozitivan utjecaj na psihološke ishode nakon traumatskog iskustva (25) dok izbjegavajuće suočavanje, koje uključuje odustajanje, poricanje i samookrivljanje, može biti rizičan faktor za razvoj depresivnosti (25,26). Navedeno potvrđuju i nalazi istraživanja provedenog u Hrvatskoj, koje je pokazalo da su žene koje su češće koristile izbjegavajuće suočavanje nakon rođenja djeteta češće doživljavale simptome PTSP-a (25). Nadalje, viša dob i niže obrazovanje pokazali su

vidual's capacity to cope with them. According to literature (20), there are six characteristics common to all stressful events, which have a negative impact on an individual's life. Valence refers to the desirability or undesirability of a stressful event, whereby the undesirability of a miscarriage is associated with increased levels of distress and difficulty accepting loss. In contrast, women who did not want the pregnancy often experience only the physical, and not the emotional trauma (they often feel relief) (21). The controllability of a stressful event refers to the individual's perception of having caused the stressful situation with their own actions, whereby women prone to blaming themselves often report increased levels of anxiety and depression (22). Unpredictability also contributes to increased levels of psychological distress. Among other significant characteristics, the most prominent ones include magnitude (level of negative changes to everyday activities), centrality (threat to achieving goals) and potential physical fatigue (20, 23).

In the context of coping with the loss of a child, studies have shown that women who do not have children often experience more symptoms of depression and anxiety (10, 24). In terms of coping styles, there are two main approaches: problem-focused coping and emotion-focused coping. Problem-focused coping includes activities that alter or remove stressors, while emotion-focused coping refers to reducing emotional tension and negative emotions (19). Emotion-focused coping can have a positive impact on the psychological outcomes after a traumatic experience (25), while avoidance coping, which includes giving up, denial and self-blame, can be a risk factor for developing depression (25, 26). The abovementioned has also been confirmed by a study conducted in Croatia, which has shown that women who used avoidance coping strategies more frequently after childbirth also experienced symptoms of PTSD more often (25). Furthermore, older age and lower education levels have proved to be significant predictors of mental health difficulties in this group of women (8, 27).

se značajnim prediktorima teškoća mentalnog zdravlja kod ove skupine žena (8,27).

Dosadašnja istraživanja ističu da socijalna podrška partnera igra ključnu ulogu u procesu oporavka nakon spontanog pobačaja. Partnerova podrška nije samo važna za emocionalno zacjeljivanje, već i za smanjenje negativnih emocionalnih doživljaja (24). Istraživanja dodatno naglašavaju važnost odnosa s partnerom nakon spontanog pobačaja pri čemu su interpersonalna i seksualna udaljenost povezane s višim razinama anksioznosti, depresivnosti i zbunjenosti (28). Uz navedeno, dijeljenje tuge s drugima također se ističe kao snažan prediktor procesa zacjeljivanja (29). Prethodno navedena istraživanja podupiru dokaze o kratkoročnim i dugoročnim posljedicama gubitka trudnoće na psihološko funkcioniranje žena i kvalitetu bračnih odnosa (30,31), no osjećaj gubitka nakon spontanog pobačaja često ostaje neprepoznat kako od zdravstvenih radnika tako i od prijatelja i obitelji (13).

## CILJ ISTRAŽIVANJA

Ovo istraživanje ima za cilj istražiti čimbenike koji su povezani s psihološkom dobrobiti kod žena koje su doživjele iskustvo spontanog pobačaja. Fokus će biti na identificiranju rizičnih i zaštitnih čimbenika koji pridonose simptomima anksioznosti, depresivnosti i stresa, kao i općem zadovoljstvu životom. Analizirani su čimbenici povezani s pojedincem (kao što su dob, broj djece, materijalni i zdravstveni status, stupanj obrazovanja) i karakteristikama samog događaja (broj spontanog pobačaja, gestacijska dob fetusa u trenutku gubitka trudnoće, planiranost trudnoće, razina uznemirenosti zbog pobačaja, proteklo vrijeme od pobačaja, predvidljivost spontanog pobačaja i magnituda - procjena negativnog utjecaja spontanog pobačaja na svakodnevni život), strategije suočavanja, percepcija podrške partnera i podrške okoline te kvaliteta bračne komunikacije.

The studies conducted so far emphasize that social support from partners plays a key role in the recovery process after a miscarriage. Partner's support is important not only for emotional healing, but also for reducing negative emotional experiences (24). Studies additionally emphasize the importance of partner relationships after experiencing a miscarriage, whereby interpersonal and sexual distance are associated with higher levels of anxiety, depression and confusion (28). In addition to the above, sharing grief with others also stands out as a significant predictor of the healing process (29).

The abovementioned studies support the evidence relating to the short-term and long-term consequences of pregnancy loss when it comes to the psychological functioning of women and the quality of marital relations (30, 31), but the sense of loss after a miscarriage often remains unrecognized both by the healthcare professionals and by the friends and families (13).

## AIM

The aim of this study is to explore the factors associated with the psychological well-being of women who have experienced miscarriage. The focus will be on identifying the risk and protective factors contributing to the symptoms of anxiety, depression and stress, as well as overall life satisfaction. We analyzed the factors associated with individuals (such as age, number of children, material and health status, education level) and the characteristics of the event itself (the number of miscarriages, gestational age of the fetus at the time of pregnancy loss, planned pregnancy, level of distress caused by the miscarriage, time passed since the miscarriage, predictability of miscarriage and magnitude – assessment of the negative impact of miscarriage on everyday life), as well as coping strategies, perception of support received from the partner and from the environment, and marital communication quality.

Older age, higher number of miscarriages and higher gestational age of the fetus at the time

Očekuje se da će viša dob, veći broj spontanih pobačaja, veća gestacijska dob fetusa u trenutku gubitka trudnoće biti povezani s višom razinom anksioznosti, depresivnosti i stresa, odnosno nižom razinom zadovoljstva. Očekuje se i da će planiranost trudnoće, procjena uznemirenosti i magnitude stresnog događaja biti povezani s višom razinom anksioznosti, depresivnosti i stresa, odnosno nižom razinom zadovoljstva životom. Osim toga očekuje se da će veći broj djece, bolje materijalne prilike, viši stupanj obrazovanja biti povezani s nižim razinama anksioznosti, depresivnosti i stresa, odnosno višim zadovoljstvom životom. Vrijeme proteklo od spontanog pobačaja i predvidljivost bit će u negativnoj korelaciji sa simptomima depresivnosti, anksioznosti i stresa, odnosno u pozitivnoj sa zadovoljstvom životom. Češće korištenje emocionalnog i problemskog suočavanja, veća socijalna podrška partnera i okoline te veća kvaliteta bračne komunikacije bit će povezani s nižim razinama anksioznosti, depresivnosti i stresa, odnosno višim zadovoljstvom životom. Suprotan obrazac povezanosti očekuje se za izbjegavajuće suočavanje. Konačno, očekuje se da će sociodemografske karakteristike pojedinca (dob, broj djece, materijalni i zdravstveni status), karakteristike spontanog pobačaja, strategije suočavanja, socijalna podrška partnera i okoline te kvaliteta bračne komunikacije biti značajni prediktori mjera psihološke dobrobiti.

## METODA

### Sudionici

Ukupno su u istraživanju sudjelovale 152 sudionice koje su proživjele iskustvo spontanog pobačaja. Prosječna dob sudionica bila je 32,97 godina ( $SD = 6,73$ ). Prosječno vrijeme koje je proteklo od posljednjeg spontanog pobačaja iznosi 3,39 godina ( $SD = 4,77$ ) s rasponom od tjedan dana do 28 godina. Prosječan broj spontanih pobačaja koje su doživjele sudionice

of pregnancy loss are all expected to be associated with higher levels of anxiety, depression and stress, that is, lower satisfaction levels. It is also expected that the planning of pregnancy, and an assessment of distress and magnitude of the stressful event will be associated with higher levels of anxiety, depression and stress, that is, lower life satisfaction levels. Moreover, it is expected that having more children, better material circumstances and a higher level of education will be associated with lower levels of anxiety, depression and stress, that is, higher life satisfaction. Time passed since the miscarriage and its predictability will be negatively associated with the symptoms of depression, anxiety and stress, that is, positively associated with life satisfaction. More frequent use of emotion-focused and problem-focused coping strategies, better social support from the partners and the environment, and a better quality of marital communication will be associated with lower levels of anxiety, depression and stress, that is, higher life satisfaction. A reverse association pattern is expected in terms of avoidance coping. Finally, the sociodemographic characteristics of individuals (age, number of children, material and health status), characteristics of the miscarriage, coping strategies, social support from the partner and the environment, and marital communication quality are expected to be significant predictors of psychological well-being measures.

## METHOD

### Participants

A total of 152 participants who have experienced miscarriage took part in the study. The average age of the participants was 32.97 years ( $SD = 6.73$ ). The average time passed since the last miscarriage was 3.39 years ( $SD = 4.77$ ) with a range from one week to 28 years. The average number of miscarriages experienced by the participants amounted to 1.33 ( $SD = 0.63$ ), whereby the maximum number recorded was four. The majority of the participants (84.87%) suffered the loss

iznosi 1,33 (SD = 0,63) pri čemu je maksimalni zabilježeni broj bio četiri. Većina sudionica (84,87 %) doživjela je gubitak u rasponu od 5. do 12. tjedna trudnoće. Oko 45 % sudionica nema djece, dok ostalih 55 % ima djecu. Sudionice su uglavnom zadovoljne svojim partnerskim odnosima (M = 5,77, SD = 1,19) te navode da pružaju visoke razine podrške svojim partnerima (M = 4,34, SD = 0,62). Oko 75 % sudionica je planiralo trudnoću, a 94,74 % je izjavilo da je trudnoća bila željena. Više od 21 % pobačaja bilo je uzrokovano kromosomskim poremećajem. Najveći postotak sudionica (40 %) nikada nije saznao uzrok gubitka trudnoće, dok 25,74 % sudionica navodi ostale uzroke uključujući trombofiliju, fizički napor i bakterijsku infekciju. Dodatni zabilježeni uzroci uključuju višeploidnu trudnoću (3,3 %), anomaliju materice (2,63 %), preeklampsiju (0,66 %).

## Mjerni instrumenti

Upitnik sociodemografskih podataka sadržavao je pitanja o subjektivnoj procjeni zdravstvenog stanja (1 - jako loše, 5 - odlično), obrazovanju (NSS, SSS, VŠS, VSS), obiteljskim materijalnim prilikama (ispodprosječne, prosječne, iznadprosječne)<sup>1</sup>, radnom i partnerskom statusu. Osim upitnika za prikupljanje sociodemografskih podataka za potrebe ovog istraživanja konstruiran je upitnik koji se odnosio na karakteristike spontanog pobačaja. Konkretno, obuhvaćeni su podaci o planiranosti i željenosti trudnoće, gestacijskoj dobi fetusa u trenutku gubitka trudnoće, ukupnom broju spontanog pobačaja te vremenu proteklom od spontanog pobačaja. Sudionice su odgovarale i na pitanja koja su se odnosila na uznemirenost, predvidljivost i magnitudu (negativan utjecaj koji je spontani pobačaj imao na njihov svakodnevni život). Pritom je teorijski raspon na svim varijablama vezanim uz karakteristike spontanog pobačaja bio od 1 do 5.

<sup>1</sup> ispodprosječne materijalne prilike u daljnjoj su analizi pridružene prosječnim materijalnim prilikama

between the 5th and 12th week of pregnancy. Approximately 45% of the participants did not have children, while the other 55% had children. The participants were mainly satisfied with their partner relationships (M = 5.77, SD = 1.19) and claimed to provide high levels of support to their partners (M = 4.34, SD = 0.62). Around 75% of the participants planned their pregnancies, and 94.74% stated that they wanted the pregnancy. More than 21% of the miscarriages was caused by chromosomal abnormalities. The highest percentage of participants (40%) never found out the cause of pregnancy loss, while 25.74% of them stated other causes such as thrombophilia, physical strain and bacterial infections. Other recorded causes included multiple pregnancy (3.3%), uterine abnormalities (2.63%), and preeclampsia (0.66%).

## Measuring instruments

The sociodemographic data questionnaire contained questions relating to the subjective health status assessment (1 – poor, 5 – excellent), education (low-skilled, secondary education, higher vocational education, university degree), family material circumstances (below average, average, above average)<sup>1</sup>, and work and partner relationship status. In addition to the sociodemographic data questionnaire, a questionnaire referring to the characteristics of the miscarriage was constructed for the purposes of this study. More precisely, data on whether the pregnancy was planned and wanted was collected, including the data on the gestational age of the fetus at the time of pregnancy loss, the total number of miscarriages and time passed since the miscarriage. The participants also answered questions relating to distress, predictability and magnitude (negative impact that the miscarriage had on their lives). At the same time, the theoretical range on all variables relating to the characteristics of the miscarriage was from 1 to 5.

<sup>1</sup> Below-average material circumstances were joined with the average material circumstances in further analysis

*Upitnik suočavanja sa stresom* (COPE; 32) sastoji se od 14 podljestvica (svaka podljestvica ima po dvije čestice), a koje se grupiraju u tri glavne strategije suočavanja: suočavanje s problemima, suočavanje s emocijama i izbjegavanje. Suočavanje s problemima uključuje aktivno rješavanje problema, izražavanje osjećaja, planiranje te traženje podrške. S druge strane, suočavanje s emocijama obuhvaća humor, konzumiranje sredstava ovisnosti, pozitivno razmišljanje i prihvaćanje. Strategije izbjegavanja uključuju odustajanje, odvratanje pažnje, poricanje, religiozne strategije i samookrivljavanje. Sudionici su na ljestvici procjene od 1 do 4 (1 - gotovo nikada; 4 - gotovo uvijek) odgovarali koliko su često pojedinu strategiju koristili tijekom proteklog tjedna. Koeficijenti pouzdanosti za podljestvice u ovom istraživanju iznosili su: emocionalno suočavanje ( $\alpha = 0,51$ ), izbjegavajuće suočavanje ( $\alpha = 0,66$ ) i problemsko suočavanje ( $\alpha = 0,85$ ).

*Ljestvicom instrumentalne i emocionalne socijalne podrške* (33) u ovom istraživanju mjerila se socijalna podrška partnera (5 čestica), te emocionalna i instrumentalna podrška okoline (14 čestica). Teorijski raspon rezultata za podršku partnera može biti od 1 do 5, dok je za podršku okoline od 1 do 3. Koeficijenti pouzdanosti za pojedine podljestvice iznosili su: socijalna podrška partnera ( $\alpha = 0,95$ ) te emocionalna i instrumentalna podrška okoline ( $\alpha = 0,86$ ).

*Ljestvica zadovoljstva brakom* (34) sastoji se od šest tvrdnji koje opisuju opću ocjenu zadovoljstva odnosom s partnerom. Sudionici izražavaju svoje (ne)slaganje s tvrdnjama na ljestvici procjene od 7 stupnjeva pri čemu (-3) označava "potpuno netočno", a (+3) "potpuno točno". Ukupni rezultat na ljestvici je prosječna vrijednost procjena za sve tvrdnje, a teorijski raspon rezultata može biti od 1 do 7 pri čemu veći rezultat ukazuje na veće zadovoljstvo odnosom. U ovom istraživanju koeficijent  $\alpha$  iznosi 0,86.

*The stress-coping questionnaire* (COPE - Coping Orientation to Problems Experienced Inventory; 32) consists of 14 subscales (each subscale has two items), which are grouped into three main coping strategies: problem-focused coping, emotion-focused coping and avoidance. Problem-focused coping includes active problem solving, expressing feelings, planning and seeking support. On the other hand, emotion-focused coping includes humor, consumption of addictive substances, positive thinking and acceptance. Avoidance coping strategies include giving up, distraction, denial, religious strategies and self-blame. On the assessment scale ranging from 1 to 4 (1 - almost never; 4 - almost always), the participants indicated how often they had used each strategy in the previous week. Reliability coefficients for the subscales in this study amounted to the following: emotion-focused coping ( $\alpha = 0.51$ ), avoidance coping ( $\alpha = 0.66$ ) and problem-focused coping ( $\alpha = 0.85$ ).

*The Instrumental and Emotional Social Support Scale* (33) was used in this study in order to measure the social support received from partners (five items), and the emotional and instrumental support from the environment (14 items). The theoretical range of results for partner support could be from 1 to 5, while for social support it was from 1 to 3. The reliability coefficients for individual subscales were the following: social support from the partner ( $\alpha = 0.95$ ), and emotional and instrumental support from the environment ( $\alpha = 0.86$ ).

*The Marital Satisfaction Scale* (34) consists of six statements describing the general satisfaction when it comes to the relationship with one's partner. The participants expressed their (dis)agreement with the statements on a 7-point assessment scale, ranging from (-3) "completely inaccurate" to (+3) "completely accurate". The total result on the scale is the average value of assessments for all statements, and the theoretical range of the results could span from 1 to 7, whereby a higher result indicated higher satisfaction with the relationship. The coefficient  $\alpha$  in this study amounted to 0.86.



*Ljestvica kvalitete bračne komunikacije* (35) ima deset tvrdnji koje opisuju opću evaluaciju komunikacije s partnerom. Sudionici izražavaju svoje (ne)slaganje s tvrdnjama na ljestvici od 7 stupnjeva, gdje (-3) označava "potpuno netočno", a (+3) "potpuno točno". Ukupan rezultat formira se kao prosjek procjena za sve tvrdnje, a teorijski raspon može biti od 1 do 7. U ovom istraživanju, koeficijent pouzdanosti  $\alpha$  iznosio je 0,94.

*Ljestvica depresivnosti, anksioznosti i stresa* - DASS (36) se sastoji od 42 čestice podijeljene u tri podljestvice, od kojih svaka ima 14 čestica. Depresivnost se odnosi na simptome poput apatije i beznadnosti, anksioznost na pobuđenost autonomnog sustava te situacijsku anksioznost, dok se stres odnosi na nestrpljenje, kroničnu pobuđenost i uznemirenost. Sudionici su davali odgovore na ljestvici procjene od četiri stupnja (0 – uopće se ne odnosi na mene, 3 – potpuno se odnosi na mene) pri čemu veći broj označava veću izraženost simptoma. U ovom istraživanju koeficijenti pouzdanosti su sljedeći: depresivnost ( $\alpha = 0,96$ ), anksioznost ( $\alpha = 0,92$ ), stres ( $\alpha = 0,95$ ).

*Ljestvica zadovoljstva životom* (37) sastoji se od 5 čestica koje mjere globalne kognitivne procjene zadovoljstva životom. Sudionici procjenjuju stupanj slaganja sa svakom tvrdnjom koristeći ljestvicu od 7 stupnjeva (1 – uopće se ne slažem, 7 – u potpunosti se slažem). Ukupan rezultat određuje se zbrajanjem svih procjena pri čemu viši rezultat upućuje na veće zadovoljstvo životom. U ovom istraživanju koeficijent pouzdanosti  $\alpha$  iznosi 0,86.

## Statističke analize

Kako bi se odgovorilo na postavljene ciljeve analizirani su osnovni deskriptivni čimbenici, izračunate interkorelacije između pojedinih skupina varijabli te su provedene hijerarhijske regresijske analize gdje su kriteriji bili pojedine mjere psihološke dobrobiti (depresivnost, anksioznost, stres i zadovoljstvo životom).

*The Marital Communication Quality Scale* (35) consists of ten statements describing a general evaluation of communication with one's partner. The participants expressed their (dis)agreement with the statements on a 7-point scale, ranging from (-3) "completely inaccurate" to (+3) "completely accurate". The total result is formed as the average value of assessments for all statements, and the theoretical range could span from 1 to 7. The reliability coefficient  $\alpha$  in this study amounted to 0.94.

*The Depression, Anxiety and Stress Scale* – DASS (36) consists of 42 items divided into three subscales, each consisting of 14 items. Depression refers to symptoms such as apathy and hopelessness, anxiety due to autonomic system activation and situational anxiety, while stress refers to impatience, chronic arousal and agitation. The participants provided answers on a 4-point assessment scale (0 – does not refer to me at all, 3 – refers to me completely), whereby a higher score indicated a greater severity of symptoms. The reliability coefficients in this study were the following: depression ( $\alpha = 0.96$ ), anxiety ( $\alpha = 0.92$ ), stress ( $\alpha = 0.95$ ).

*The Satisfaction with Life Scale* (37) consists of five items measuring the global cognitive assessments of satisfaction with life. The participants indicated their level of agreement with each statement using a 7-point scale (1 – I strongly disagree, 7 – I completely agree). The total result was determined as the sum of all assessments, whereby a higher score indicated higher satisfaction with life. The reliability coefficient  $\alpha$  in this study amounted to 0.86.

## Statistical analyses

In order to provide an answer to the set goals, the main descriptive factors were analyzed, the intercorrelations between individual groups of variables were calculated, and hierarchical regression analyses were conducted in which particular measures of psychological well-being (depression, anxiety, stress and life satisfaction) served as the criteria.

## Postupak istraživanja

Istraživanje je dobilo odobrenje Etičkog povjerenstva Odjela za psihologiju na Sveučilištu u Zadru. Ispitivanje je provedeno *online* putem različitih *Facebook* grupa; uključujući grupe poput Centra za reproduktivno mentalno zdravlje, Mame na Fejsu, Mame iz različitih gradova te grupe posvećene trudnicama i majkama. Sudjelovanje u istraživanju bilo je dobrovoljno, uz zajamčenu anonimnost sudionica, a na početnoj stranici istraživanja bile su jasno istaknute svrha i ciljevi istraživanja. Sudionicama je naglašeno da imaju pravo odustati u bilo kojem trenutku. Također, ponuđena im je mogućnost kontakta s Centrom za reproduktivno mentalno zdravlje za stručnu pomoć, ako im istraživanje izazove neugodne emocionalne reakcije.

## REZULTATI

Ispitivanje razina depresivnosti, anksioznosti, stresa i zadovoljstva životom

Osnovni deskriptivni čimbenici prikazani su u tablici 1.

Analize distribucija rezultata (tablica 1) pokazuju da su asimetričnost i kurtičnost unutar prihvatljivih granica normalne raspodjele, što omogućuje korištenje parametrijskih postupaka (38). Prosječni rezultati na Ljestvici zadovoljstva životom ukazuju na općenito visoku razinu zadovoljstva, dok su rezultati na podljestvicama depresivnosti, anksioznosti i stresa pokazali generalno prosječne razine simptoma. Većina sudionica doživljava normalne razine simptoma, no približno 12 % doživljava teške, a više od 17 % izrazito teške simptome anksioznosti. Oko 8 % sudionica izvještava o ozbiljnim ili izrazito ozbiljnim simptomima depresivnosti, dok preko 17 % doživljava teške, a oko 9 % izrazito teške simptome stresa.

## Study procedure

The study was approved by the Ethics Committee of the Department of Psychology at the University of Zadar. The study was conducted online, via various Facebook groups; including groups such as *Centar za reproduktivno mentalno zdravlje* (Centre for Reproductive Mental Health), *Mame na Fejsu* (Moms on Facebook), *Mame iz različitih gradova* (Moms from Different Cities) and groups dedicated to pregnant women and mothers. Participation in the study was voluntary, with guaranteed anonymity of the participants, and the purpose and aims of the study were clearly stated on the study home page. It was emphasized to the participants that they had the right to withdraw from participation in the study at any time. Furthermore, they were offered the possibility to contact the Centre for Reproductive Mental Health in order to receive professional help if this study caused any unpleasant emotional reactions.

## RESULTS

Assessment of depression, anxiety, stress and life satisfaction levels

The main descriptive factors are presented in Table 1.

The result distribution analyses (Table 1) indicate that skewness and kurtosis are within the acceptable limits of normal distribution, which enables the use of parametric procedures (38). The average results obtained on the Satisfaction with Life Scale indicate a generally high level of satisfaction, while the results obtained in the depression, anxiety and stress subscales showed generally average symptom levels. The majority of the participants experienced normal symptom levels, however, approximately 12% of them experienced severe symptoms, and 17% experienced extremely severe symptoms of anxiety. Around 8% of the participants reported experiencing severe or extremely severe symptoms of depression, while over 17% experienced severe, and around 9% experienced extremely severe symptoms of stress.

**TABLICA 1.** Deskriptivni čimbenici i pokazatelji normalnosti distribucije za korištene varijable (N=152)  
**TABLE 1.** Descriptive factors and indicators of normality of distribution for the variables used (N=152)

	M	SD	Min	Maks / Max	Asimetričnost / Skewness	Kurtičnost / Kurtosis	K-S
Dob / Age	32,97	6,73	21	50	0,50	-0,36	0,10
Zdravstveno stanje / Health status	3,99	0,79	2	5	-0,39	-0,38	0,25**
Gestacijska dob / Gestational age	9,96	4,31	2	24	1,51	2,32	0,18**
Proteklo vrijeme / Time passed	176,16	248,15	1	1456	2,26	6,11	0,25**
Uznemirenost / Distress	4,78	0,51	3	5	-2,35	4,68	0,49**
Predvidljivost / Predictability	1,97	1,20	1	5	0,97	-0,18	0,29**
Magnituda / Magnitude	3,97	0,99	1	5	-0,64	-0,32	0,23**
Problemsko suočavanje / Problem-focused coping	28,61	6,27	14	40	-0,18	-0,73	0,09
Emocionalno suočavanje / Emotion-focused coping	17,40	2,84	12	24	0,03	-0,67	0,08
Izbjegavajuće suočavanje / Avoidance coping	20,98	4,72	12	34	0,26	-0,25	0,07
Socijalna PP / Social PS	4,17	1,03	1	5	-1,28	0,83	0,21**
Podrška okoline / Environment support	2,02	0,44	1	3	0,41	-0,19	0,09
KBK / QMC	5,44	1,39	1,2	7	-1,05	0,45	0,15**
Depresivnost / Depression	9,56	10,21	0	40	1,12	0,49	0,18**
Anksioznost / Anxiety	10,11	9,29	0	42	1,09	0,62	0,17**
Stres / Stress	16,95	11,16	0	42	0,36	-0,92	0,11*
Zadovoljstvo životom / Life satisfaction	23,75	5,91	9	35	-0,25	-0,48	0,10

Legenda: Proteklo vrijeme - vrijeme prošlo od posljednjeg spontanog pobačaja (u tjednima), Socijalna PP – socijalna podrška partnera, KBK – kvaliteta bračne komunikacije, K-S - Kolmogorov-Smirnov test; \* - p <0,05; \*\* - p <0,01  
 / Legend: Time passed – time passed since the last miscarriage (in weeks), Social PS – social partner support, QMC – quality of marital communication, K-S - Kolmogorov-Smirnov test; \* - p <0,05; \*\* - p <0,01

U okviru prvog problema istraživanja analizirane su interkorelacije između pojedinih varijabli koje su uključene u daljnje analize, te je vidljivo da je riječ uglavnom o niskim međusobnim korelacijama (tablica 2). Vidljivo je da je viša dob povezana s nižim razinama depresivnosti i stresa. Sudionice s višim materijalnim prilikama i boljim zdravstvenim stanjem izvještavaju o boljoj psihološkoj dobrobiti (veće zadovoljstvo životom i niže razine depresivnosti, anksioznosti i stresa). Žene koje imaju djecu izvještavaju o nižim razinama depresivnosti, anksioznosti i stresa te većem zadovoljstvu životom.

Kada je riječ o karakteristikama spontanog pobačaja, analize su pokazale da što je više vremena proteklo od spontanog pobačaja, to su sudionice izvještavale o boljoj psihološkoj dobrobiti (odnosno nižim razinama depresivnosti, anksioznosti i stresa te većem zadovoljstvu životom). Međutim, veća gestacijska dob fetusa u trenutku gubitka trudnoće povezana je s nižim zadovoljstvom životom. Žene koje su planirale trudnoću izvještavaju o većem zadovoljstvu životom. Viša procjena uznemirenosti zbog spontanog pobačaja pozitivan je

As part of the first research problem, the intercorrelations between individual variables which were included in further analyses were investigated, and it was evident that these were mainly low mutual correlations (Table 2). It can be observed that older age is associated with lower levels of depression and stress. Participants with better material circumstances and better health reported better psychological well-being (higher satisfaction with life and lower levels of depression, anxiety and stress). Women who have children reported lower levels of depression, anxiety and stress, and higher satisfaction with life.

In terms of the characteristics of the miscarriage, analyses have shown that the more time had passed since the miscarriage, the better was the psychological well-being reported by the participants (i.e. lower levels of depression, anxiety and stress, and higher satisfaction with life). However, higher gestational age of the fetus at the time of pregnancy loss was associated with lower satisfaction with life. Women who planned their pregnancies reported higher satisfaction with life. Higher assessments in terms of distress due to the miscarriage are positively correlated with depression, anxiety and stress

korelat simptoma depresivnosti, anksioznosti i stresa, odnosno negativan korelat zadovoljstva životom. Sudionice koje percipiraju više socijalne podrške partnera imaju manje simptoma depresivnosti i stresa, te su zadovoljnije životom. Sudionice koje imaju kvalitetniju komunikaciju s partnerom te veću podršku okoline pokazuju manje simptoma depresivnosti, anksioznosti i stresa te su zadovoljnije životom. S druge strane, sudionice koje češće koriste izbjegavajuće suočavanje manje su zadovoljne životom te imaju više simptoma depresivnosti, anksioznosti i stresa, dok sudionice koje koriste emocionalno suočavanje pokazuju manje simptoma depresivnosti i veće zadovoljstvo životom. Varijable razina obrazovanja, broj pobačaja, predvidljivost spontanog pobačaja i problemsko suočavanje nisu pokazale povezanost ni s jednom kriterijskom varijablom te zbog preglednosti nisu prikazane u tablici 2.

## Regresijske analize

Provedene su četiri hijerarhijske regresijske analize pri čemu su kriteriji bili pojedini indikatori psihološke dobrobiti odnosno anksioznost, depresivnost, stres i zadovoljstvo životom. U prvom i drugom koraku uvedene su sociodemografske karakteristike i karakteristike spontanog pobačaja koje su se pokazale povezanima s pojedinim kriterijskim varijablama. U trećem su koraku uvedene strategije suočavanja, a u četvrtom socijalna podrška partneru i okoline te kvaliteta bračne komunikacije.

Rezultati hijerarhijske regresijske analize za kriterij depresivnosti prikazani su u tablici 3. Dobiveni rezultati impliciraju da sudionice koje svoje zdravstveno stanje procjenjuju boljim te sudionice koje izvještavaju o manjem negativnom utjecaju spontanog pobačaja (na njihov svakodnevni život) imaju manje simptoma depresivnosti. Kvalitetnija bračna komunikacija povezana je s manje simptoma depresivnosti.

symptoms, i.e. a negatively correlated with life satisfaction. The participants who received more social support from their partners experienced fewer symptoms of depression and stress, and were more satisfied with their lives. The participants who had better communication with their partners and higher support from their environment displayed fewer symptoms of depression, anxiety and stress, and were more satisfied with their lives. On the other hand, the participants who used avoidance coping strategies more frequently were less satisfied with their lives and experienced more symptoms of depression, anxiety and stress, while those participants who used emotion-focused coping displayed fewer symptoms of depression and higher life satisfaction. No association was observed between the education level, number of miscarriages, predictability of miscarriage and problem-focused coping variables and any of the criterion variables, therefore, for reasons of clarity, they were not presented in Table 2.

## Regression analyses

Four hierarchical regression analyses were conducted in which the individual psychological well-being indicators, i.e. anxiety, depression, stress and life satisfaction, served as the criteria. Sociodemographic characteristics and characteristics regarding the miscarriage which proved to be associated with individual criterion variables were introduced in the first and second steps. Coping strategies were introduced in the third step, while social partner support and support from the environment, as well as marital communication quality, were introduced in the fourth step. The results of hierarchical regression analysis for the depression criterion are presented in Table 3. The obtained results imply that the participants who assessed their own health better and those who reported experiencing fewer negative effects of the miscarriage (on their everyday lives) had fewer symptoms of depression. Better marital communication was associated with fewer depression symptoms. In

**TABLICA 2.** Korelacije između pojedinih varijabli korištenih u ovom istraživanju (N=152)  
**TABLE 2.** Correlations between individual variables used in this study (N=152)

	1 Dob / Age	2 MP / MC	3 ZS / HS	4 BD / WC	5 PV / TP	6 GD / GA	7 P	8 U / D	9 M	10 IS / AC	11 ES / EC	12 PP / PS	13 PO / ES	14 KBK / QMC	15 D	16 A	17 S	18 ZZ / LS
1	-	-0,16*	0,00	0,49**	0,59**	0,01	0,12	-0,07	-0,01	-0,01	0,08	-0,13	0,09	-0,14	-0,17*	-0,13	-0,17*	0,06
2		-	0,06	-0,20*	-0,13	0,04	0,14	0,15	0,07	-0,15	-0,03	0,20*	0,04	0,18*	-0,05	-0,08	-0,07	0,23**
3			-	-0,02	-0,07	-0,13	0,17*	-0,08	-0,12	-0,16*	0,24**	0,25**	0,28**	0,27**	-0,33**	-0,32**	-0,39**	0,34**
4				-	0,44**	-0,04	-0,06	0,01	-0,16	-0,07	0,03	-0,22**	0,01	-0,19*	-0,21**	-0,09	-0,18*	,17*
5					-	0,02	-0,08	-0,06	-0,12	-0,07	0,05	-0,04	0,07	-0,04	-0,21**	-0,17*	-0,21**	0,16*
6						-	0,12	0,17*	0,16*	0,17*	-0,09	0,03	0,17*	-0,11	0,11	0,09	0,08	-0,17*
7							-	0,14	0,09	-0,14	0,06	0,29**	0,08	0,21*	-0,06	-0,13	-0,04	0,16*
8								-	0,43**	0,09	-0,23**	0,10	-0,08	0,06	0,19*	0,13	0,14	0,02
9									-	0,33**	-0,19*	-0,18*	-0,17*	-0,14	0,40**	0,26**	0,32**	-0,22**
10										-	-0,14	-0,23**	-0,14	-0,28**	0,49**	0,43**	0,49**	-0,38**
11											-	0,13	0,12	0,11	-0,23**	-0,09	-0,16	0,18*
12												-	0,22**	0,81**	-0,27**	-0,15	-0,23**	0,42**
13													-	0,13	-0,23**	-0,19*	-0,29**	0,27**
14														-	-0,35**	-0,31**	-0,36**	0,48**
15															-	0,76**	0,79**	-0,59**
16																-	0,83**	-0,45**
17																	-	-0,54**
18																		-

Legenda: MP - materijalne prilike (prosječne/iznadprosječne), ZS - subjektivna procjena zdravstvenog stanja, BD - ima/nema djecu, PV - vrijeme proteklo od posljednjeg spontanog pobačaja (u tjednima), GD - gestacijska dob, P - planiranost, U - procjena uznemirenosti, M - magnituda; procjena negativnog utjecaja događaja na svakodnevni život, IS - izbjegavajuće suočavanje, ES - emocionalno suočavanje, PP - socijalna podrška partneru, PO - podrška okoline, KBK - kvaliteta bračne komunikacije, D - depresivnost, A - anksioznost, S - stres, ZZ - zadovoljstvo životom, \* -  $p < 0,05$ , \*\* -  $p < 0,01$   
 / Legend: MC – material circumstances (average/above average), HS – subjective health status assessments, WC – with/without children, TP – time passed since the last miscarriage (in weeks), GA – gestational age, P – planned, D – distress assessment, M – magnitude; assessment of negative impact of the event on everyday life, AC – avoidance coping, EC – emotion-focused coping, PS – social partner support, ES – environment support, QMC – quality of marital communication, D – depression, A – anxiety, S – stress, LS – life satisfaction, \* -  $p < 0,05$ , \*\* -  $p < 0,01$

Nasuprot tome, sudionice koje izvještavaju o češćem korištenju izbjegavajućih strategija suočavanja imaju više simptoma depresivnosti. Konačni model objašnjava oko 37 % varijance depresivnosti.

Druga analiza provedena je za kriterij simptoma anksioznosti (tablica 4). Postupak uvođenja varijabli u analizu bio je identičan kao u prethodnoj analizi. Konačni model objašnjava 28 % varijance kriterija. Rezultati pokazuju da sudionice s boljim zdravstvenim stanjem, duljim vremenom od spontanog pobačaja te boljom kvalitetom komunikacije s partnerom doživljavaju manje simptoma anksioznosti. S druge strane, izbjegavajuće suočavanje pozitivno je povezano sa simptomima anksioznosti

contrast, the participants who reported using avoidance coping strategies more frequently experienced more depression symptoms. The final model explains around 37% of the depression variance.

The second analysis was conducted for the anxiety symptoms criterion (Table 4). The procedure for introducing the variables into the analysis was identical to the previous analysis. The final model explains 28% of the criterion variance. The results showed that the participants with better health, longer time period since the miscarriage and better communication with their partner experienced fewer symptoms of anxiety. On the other hand, there was a positive association between avoidance coping strategies and symptoms of

**TABLICA 3.** Rezultati hijerarhijske analize za kriterij depresivnosti (N=152)**TABLE 3.** Hierarchical analysis results for the depression criterion (N=152)

	korak / step		korak / step	
	$\beta$	$\beta$	$\beta$	$\beta$
Dob / Age	-0,07	-0,04	-0,04	-0,05
ZS / HS	-0,30**	-0,27**	-0,22**	-0,16*
Djeca / Children	-0,17*	-0,09	-0,09	-0,13
Proteklo vrijeme / Time passed		-0,12	-0,11	-0,09
Uznemirenost / Distress		0,02	0,03	0,05
Magnituda / Magnitude		0,30**	0,21**	0,17**
IS / AC			0,33**	0,28**
ES / EC			-0,06	-0,06
SPP / SPS				0,03
Podrška okoline / Environment support				-0,06
KBK / QMC				-0,23*
R2	0,15	0,27	0,38	0,42
R2kor / R2cor	0,13	0,24	0,34	0,37
F(df)	8,40** (3,15)	8,80** (6,15)	9,66** (9,14)	8,55** (12,14)
$\Delta R2$		0,12	0,11	0,04

Legenda: ZS - procjena zdravstvenog stanja, Djeca - nema/ima djecu, Proteklo vrijeme - vrijeme proteklo od posljednjeg spontanog pobačaja (u tjednima), Uznemirenost - procjena uznemirenosti uzrokovane spontanom pobačajem, Magnituda - procjena negativnog utjecaja događaja na svakodnevni život, KBK - kvaliteta bračne (partnerske) komunikacije, IS - izbjegavajuće suočavanje, ES - emocionalno suočavanje, SPP- socijalna podrška partnera,  $\beta$  - vrijednost standardiziranog regresijskog koeficijenta, R2 - ukupan doprinos prediktora objašnjenju varijanci, R2kor - korigirani koeficijent multiple determinacije, F - vrijednost F-omjera, df - stupnjevi slobode,  $\Delta R2$  - promjena u postotku objašnjene varijance prediktora, \* -  $p < 0,05$ , \*\* -  $p < 0,01$

/ Legend: HS - health status assessment, Children - with/without children, Time passed - time passed since the last miscarriage (in weeks), Distress - assessment of distress caused by the miscarriage, Magnitude - assessment of negative impact of the event on everyday life, QMC - quality of marital (partner) communication, AC - avoidance coping, EC - emotion-focused coping, SPS - social partner support,  $\beta$  - standardized regression coefficient value, R2 - total predictor contribution to explained variance, R2cor - corrected multiple determination coefficient, F - F-ratio value, df - degrees of freedom,  $\Delta R2$  - change in the percentage of explained predictor variance, \* -  $p < 0,05$ , \*\* -  $p < 0,01$

**TABLICA 4.** Rezultati hijerarhijske analize za kriterij anksioznosti (N=152)**TABLE 4.** Hierarchical analysis results for the anxiety criterion (N=152)

	korak / step		korak / step	
	$\beta$	$\beta$	$\beta$	$\beta$
ZS / HS	-0,29**	-0,28**	-0,25**	-0,21**
Proteklo vrijeme / Time passed		-0,15*	-0,14*	-0,14*
Magnituda / Magnitude		0,19**	0,12	0,12
IS / AC			0,32**	0,29**
ES / EC			0,05	0,05
SPP / SPS				0,23
Podrška okoline / Environment support				-0,07
KBK / QMC				-0,30**
R	0,09	0,17	0,27	0,32
R2kor / R2cor	0,09	0,15	0,24	0,28
F(df)	15,55* (1,15)	9,93** (3,15)	9,02** (6,15)	7,44** (9,14)
$\Delta R2$		0,08	0,10	0,05

Legenda: ZS - procjena zdravstvenog stanja, Proteklo vrijeme - vrijeme proteklo od posljednjeg spontanog pobačaja (u tjednima), Magnituda - procjena negativnog utjecaja događaja na svakodnevni život, IS - izbjegavajuće suočavanje, ES - emocionalno suočavanje, SPP - socijalna podrška partnera, KBK - kvaliteta bračne komunikacije,  $\beta$  - vrijednost standardiziranog regresijskog koeficijenta, R2 - ukupan doprinos prediktora objašnjenju varijanci, R2kor - korigirani koeficijent multiple determinacije, F - vrijednost F-omjera, df - stupnjevi slobode,  $\Delta R2$  - promjena u postotku objašnjene varijance prediktora, \* -  $p < 0,05$ , \*\* -  $p < 0,01$

/ Legend: HS - health status assessment, Time passed - time passed since the last miscarriage (in weeks), Magnitude - assessment of negative impact of the event on everyday life, AC - avoidance coping, EC - emotion-focused coping, SPS - social partner support, QMC - quality of marital communication,  $\beta$  - standardized regression coefficient value, R2 - total predictor contribution to explained variance, R2cor - corrected multiple determination coefficient, F - F-ratio value, df - degrees of freedom,  $\Delta R2$  - change in the percentage of explained predictor variance, \* -  $p < 0,05$ , \*\* -  $p < 0,01$

(pri čemu socijalna podrška partnera pokazuje supresorski efekt budući da nije u korelaciji s navedenim kriterijem).

Treća analiza usmjerena je na simptome stresa no uvedeni su različiti sociodemografski čim-

anxiety (whereby social support from the partner had a suppressor effect since it had no correlation with the abovementioned criterion).

The focus of the third analysis was on the symptoms of stress, however different sociodemo-

benici i čimbenici povezani s karakteristikama spontanog pobačaja, ovisno o prethodno utvrđenim korelacijama između prediktorskih i kriterijske varijable stresa (tablica 5). Postavljeni model objašnjava oko 41 % varijance kriterija. Rezultati pokazuju da manje simptoma stresa doživljavaju sudionice koje imaju kvalitetniju bračnu komunikaciju i veću podršku okoline te sudionice boljeg zdravstvenog stanja. Suprotno, više simptoma stresa doživljavaju sudionice koje koriste izbjegavajuće strategije suočavanja.

Što se tiče zadovoljstva životom, postavljeni model objašnjava 38 % varijance kriterija. Pritom, značajni doprinos ostvaruju podrška okoline i kvaliteta bračne komunikacije. Veće zadovoljstvo životom imaju sudionice boljeg materijalnog i zdravstvenog stanja, kao i one koje imaju djecu, veću podršku okoline i kvalitetniju bračnu komunikaciju. S druge strane, one koje koriste izbjegavajuće suočavanje manje su zadovoljne životom. Rezultati hijerarhijske regresijske analize za kriterij zadovoljstva životom prikazani su u tablici 6.

graphic factors and factors associated with the characteristics of the miscarriages were introduced, depending on the previously determined correlations between predictor variables and the stress criterion variable (Table 5). The set model explains around 41% of the criterion variance. The results indicate that those participants who had better marital communication and more support from the environment, as well as those with better health, experienced fewer stress symptoms. In contrast, the participants who used avoidant coping strategies experienced more stress symptoms.

As regards satisfaction with life, the set model explains 38% of the criterion variance. In that respect, support from the environment and the quality of marital communication had a significant contribution. Participants with a better material and health status were more satisfied with their lives, as well as those that have children, better support from their environment and better marital communication. On the other hand, those who used avoidance coping strategies were less satisfied with life. The results of hierarchical regression analysis for the life satisfaction criterion are presented in Table 6.

**TABLICA 5.** Rezultati hijerarhijske analize za kriterij stresa (N=152)  
**TABLE 5.** Hierarchical analysis results for the stress criterion (N=152)

	korak / step		korak / step		korak / step		korak / step	
	β		β		β		β	
Dob / Age	-0,09		-0,04		-0,06		-0,07	
Zdravstveno stanje / Health status	-0,36**		-0,34**		-0,30**		-0,23**	
Broj djece / Number of children	-0,14		-0,07		-0,05		-0,09	
Proteklo vrijeme / Time passed			-0,15		-0,12		-0,10	
Magnituda / Magnitude			0,23**		0,12		0,10	
IS / AC					0,35**		0,30**	
ES / EC					-0,01		-0,01	
SPP / SPS							0,12	
Podrška okoline / Environment support							-0,13*	
KBK / QMC							-0,29**	
R2	0,18		0,26		0,39		0,45	
R2kor / R2cor	0,16		0,23		0,35		0,41	
F(df)	10,85**		10,20**		11,28**		10,41**	
	(3,15)		(5,15)		(8,14)		(11,14)	
ΔR2			0,08		0,13		0,06	

Legenda: ZS - procjena zdravstvenog stanja, Proteklo vrijeme - vrijeme proteklo od posljednjeg spontanog pobačaja (u tjednima), Magnituda - procjena negativnog utjecaja događaja na svakodnevni život, IS - izbjegavajuće suočavanje, ES - emocionalno suočavanje, SPP - socijalna podrška partnera, KBK - kvaliteta bračne komunikacije, β - vrijednost standardiziranog regresijskog koeficijenta, R2 - ukupan doprinos prediktora objašnjenju varijanci, R2kor - korigirani koeficijent multiple determinacije, F - vrijednost F-omjera, df - stupnjevi slobode, ΔR2 - promjena u postotku objašnjene varijance prediktora, \* - p<0,05, \*\* - p<0,01 / Legend: HS - health status assessment, Time passed - time passed since the last miscarriage (in weeks), Magnitude - assessment of negative impact of the event on everyday life, AC - avoidance coping, EC - emotion-focused coping, SPS - social partner support, QMC - quality of marital communication, β - standardized regression coefficient value, R2 - total predictor contribution to explained variance, R2cor - corrected multiple determination coefficient, F - F-ratio value, df - degrees of freedom, ΔR2 - change in the percentage of explained predictor variance, \* - p<0.05, \*\* - p<0.01

**TABLICA 6.** Rezultati hijerarhijske analize za kriterij zadovoljstva životom (N=152)**TABLE 6.** Hierarchical analysis results for the life satisfaction criterion (N=152)

	korak / step		korak / step	
	$\beta$	$\beta$	$\beta$	$\beta$
Materijalne prilike / Material circumstances	0,24**	0,24**	0,21**	0,18**
ZS / HS	0,30**	0,26**	0,23**	0,14*
Djeca / Children	0,21**	0,13	0,13	0,21**
Proteklo vrijeme / Time passed		0,14	0,13	0,09
Gestacijska dob / Gestational age		-0,13	-0,10	-0,11
Planiranost / Planned		0,12	0,08	0,04
Magnituda / Magnitude		-0,15*	-0,08	-0,02
IS / AC			-0,21**	-0,14*
ES / EC			0,05	0,05
SPP / SPS				,09
Podrška okoline / Environment support				,13*
KBK / QMC				,27**
R	0,19	0,26	0,31	0,44
R2kor / R2cor	0,18	0,23	0,26	0,38
F(df)	11,83**	7,38**	6,29**	8,22**
$\Delta R^2$	(3,15)	(7,14)	(10,14)	(13,14)
		0,07	0,05	0,13

Legenda: Materijalne prilike (prosječne/iznadprosječne), ZS - procjena zdravstvenog stanja, Djeca - nema/ima  
/ Legend: Material circumstances (average/above average), HS - health status assessment, Children - with/without

## RASPRAVA

Osnovni cilj istraživanja bio je istražiti povezanost različitih rizičnih i zaštitnih čimbenika sa simptomima anksioznosti, depresivnosti i stresa kod žena koje su imale iskustvo spontanog pobačaja. U prvom dijelu istraživanja analizirane su povezanosti između osobnih karakteristika sudionica, specifičnih aspekata spontanog pobačaja te njihovih rezultata na mjerama anksioznosti, depresivnosti, stresa i zadovoljstva životom.

Rezultati su pokazali da je viša dob povezana s manje simptoma depresivnosti i stresa, dok su bolje materijalne prilike povezane s većim zadovoljstvom životom. Sudionice koje procjenjuju svoje zdravstveno stanje boljim imaju manje simptoma depresivnosti, anksioznosti i stresa, što ukazuje da dobro zdravstveno stanje može djelovati kao zaštitni čimbenik za mentalno zdravlje nakon spontanog pobačaja (39). Što se tiče broja djece, rezultati ukazuju da majke koje imaju djecu doživljavaju manje simptoma depresivnosti te su zadovoljnije životom. Ovi rezultati podržavaju prethodna istraživanja koja su istaknula važnost navedenih zaštitnih

## DISCUSSION

The main aim of the study was to explore the connection between the various risk and protective factors and the symptoms of anxiety, depression and stress in women who have experienced miscarriage. In the first part of the study, we analyzed the connections between the personal characteristics of the participants, the specific aspects of the miscarriages and their results in relation to the measures of anxiety, depression, stress and life satisfaction.

The results showed that older age was associated with fewer symptoms of depression and stress, while better material circumstances were associated with higher life satisfaction. The participants who assessed they were in better health experienced fewer symptoms of depression, anxiety and stress, which indicates that good health could act as a protective factor for mental health after a miscarriage (39).

As regards the number of children, the results indicate that mothers with children experienced fewer symptoms of depression and more satisfaction with life. These results support the findings of previous studies which highlighted the



faktora (10,23,40,41). Rezultati provedenog istraživanja pokazuju da su sudionice zadovoljnije životom te pokazuju manje simptoma depresivnosti, anksioznosti i stresa što je više vremena prošlo od spontanog pobačaja. Dobiiveni rezultati potkrepljuju polazište teorija hedonističkog kruga i zadane vrijednosti (42,43). Teorija hedonističkog kruga pretpostavlja da će se zadovoljstvo životom tijekom procesa prilagodbe (unatoč jakom utjecaju velikih životnih događaja) vratiti na osnovnu razinu specifičnu za pojedinca (42). Također, ovi rezultati podržavaju i postavke teorije zadane vrijednosti koja implicira da se ljudi mogu prilagoditi gotovo svim životnim događajima pri čemu se vremenom smanjuje intenzitet emocionalnih reakcija (43). Pri interpretaciji ovih rezultata važno je napomenuti da je nešto više od 40 % žena u ovom istraživanju doživjelo spontani pobačaj prije više od godinu dana. Iako simptomi anksioznosti i depresivnosti mogu trajati duže (44), rezultati istraživanja (28) pokazuju da se ti simptomi često povlače unutar godine dana ili ranije. Također je bitno naglasiti da većinu uzorka čine žene koje su zadovoljne partnerskim odnosom te kvalitetom bračne komunikacije. Naime, prethodna istraživanja pokazuju da zadovoljstvo partnerskim odnosom olakšava proces tugovanja te se povezuje s posttraumatskim rastom kod žena (45).

Gestacijska dob fetusa pri kojoj je došlo do gubitka trudnoće negativno je povezana sa zadovoljstvom životom, drugim riječima, što je žena duže bila trudna kad se pobačaj dogodio, zadovoljstvo životom je manje. Ovi nalazi u skladu su s pretpostavkama o razvoju privrženosti između majke i njena djeteta pri čemu će reakcije na gubitak biti izraženije kod onih žena kod kojih je emocionalna veza duže stvarana (46). Drugim riječima, prekid emocionalne veze s nerođenim djetetom može imati negativne implikacije na procjene zadovoljstva životom nakon gubitka trudnoće. Dodatno, one sudionice koje procjenjuju da ih je spontani pobačaj više uzne-

importance of the abovementioned protective factors (10, 23, 40, 41). The results of the conducted study indicate that the participants were more satisfied with their lives and displayed fewer symptoms of depression, anxiety and stress after more time had passed since the miscarriage. The obtained results support the views of the hedonic treadmill and the default value theories (42, 43). The hedonic treadmill theory suggests that during the adaptation process (despite the strong influence of major life events) an individual's satisfaction with life will return to a baseline level specific for the individual (42). Furthermore, these results also support the assumptions of the default value theory which implies that people can adapt to almost any situation in life, whereby the intensity of emotional reactions decreases with time (43). When interpreting these results, it is important to mention that a little over 40% of the women participating in this study experienced the miscarriage more than a year before the study. Although the symptoms of anxiety and depression could last longer (44), the results of this study (28) indicate that these symptoms often resolve within one year or earlier. It should also be noted that the majority of the sample consisted of women who were satisfied with the relationship with their partner and the quality of marital communication. Namely, previous studies indicated that satisfaction with one's partner relationship facilitates the grieving process and is associated with posttraumatic growth in women (45).

The gestational age of the fetus at the time of pregnancy loss was negatively associated with life satisfaction, in other words, the longer a woman was pregnant at the time of miscarriage, the lower was her life satisfaction. These findings are consistent with the assumptions on the development of attachment between a mother and her child, whereby the reactions to the loss will be more pronounced in women whose emotional connection was being created for a longer time (46). In other words, the termination of emotional connection with one's unborn child can have negative implications for the assessments of life

mirio izvještavaju o više simptoma depresivnosti te sukladno tome veća magnituda stresnog događaja pozitivan je korelat simptoma anksioznosti, depresivnosti i stresa te negativan zadovoljstva životom. Ovi nalazi upućuju da je riječ o kumulativnom djelovanju stresnih životnih događaja (20,47).

Kada je riječ o strategijama suočavanja, rezultati istraživanja su pokazali da sudionice koje češće koriste izbjegavajuće strategije suočavanja pokazuju više simptoma anksioznosti, depresivnosti i stresa te su manje zadovoljne životom. Ovi rezultati podupiru neke prethodne nalaze (23,41) koji impliciraju da je učestalije korištenje strategija kao što su odustajanje, poricanje i samookrivljavanje povezano s lošijom psihološkom prilagodbom. Emocionalno suočavanje u negativnom je odnosu sa simptomima depresivnosti, a u pozitivnom sa zadovoljstvom životom što upućuje da emocionalno suočavanje može imati korisne učinke nakon spontanog pobačaja poboljšavajući psihološke ishode i kvalitetu života (25,26). S druge strane, problemsko suočavanje nije bilo povezano ni s jednom ispitivanom varijablom, što podupire prethodna istraživanja koja ukazuju da u situacijama s malo kontrole, poput zdravstvenih problema, emocionalno suočavanje prevladava (25). Rezultati istraživanja pokazuju da je veća socijalna podrška partnera i okoline povezana s nižim razinama depresivnosti i stresa te većim zadovoljstvom životom. Dodatno, podrška okoline negativno je povezana sa simptomima anksioznosti. U skladu s očekivanjem, kvaliteta bračne komunikacije negativno je povezana sa simptomima iz sve tri skupine (depresivnost, anksioznost i stres), no dobivena je pozitivna povezanost sa zadovoljstvom životom. Ovi nalazi podupiru postavke modela socijalno kognitivne obrade kao i teorije razgovorom potaknute ponovne procjene (48,49). Prema modelu socijalno-kognitivne obrade (49), razgovaranje je jedan od ključnih čimbenika koji olakšava oporavak nakon traumatskog događaja pri

satisfaction after pregnancy loss. In addition, the participants who estimated that they were more disturbed by the miscarriage reported experiencing more depression symptoms, so accordingly, a higher magnitude of a stressful event was positively correlated with the symptoms of anxiety, depression and stress, and negatively correlated with life satisfaction. These findings point to a cumulative effect of stressful life events (20, 47).

In terms of coping strategies, study results have shown that the participants who used avoidance coping strategies more frequently displayed more symptoms of anxiety, depression and stress, and were less satisfied with life. These results support some previous findings (23, 41) which imply that a more frequent use of strategies such as giving up, denial and self-blame is associated with poorer psychological adjustment. Emotion-focused coping is negatively associated with the symptoms of depression, but is positively associated with life satisfaction, indicating that emotion-focused coping can have beneficial effects after a miscarriage by improving the psychological outcomes and the quality of life (25, 26). On the other hand, problem-focused coping was not associated with any of the examined variables, thus supporting the findings of previous studies which indicated that in situations with little control, such as health problems, emotional-focused coping prevails (25). Study results have shown that higher social support from the partner and the environment is associated with lower levels of depression and stress, and higher life satisfaction. Additionally, support from the environment is negatively associated with anxiety symptoms. In line with the expected results, the quality of marital communication is negatively associated with the symptoms relating to all three groups (depression, anxiety and stress), however, a positive association was observed in terms of life satisfaction. These findings support the assumptions of the social cognitive processing model, as well as conversation-based reassessment theory (48, 49). According to the social cognitive processing model (49), conversation is one of the key factors that facilitates recovery after a traumatic event,

čemu socijalna podrška smanjuje stres djelujući na kognitivnu obradu informacija. Drugim riječima, socijalna podrška pomaže u konsolidaciji trenutnih informacija, pruža novu perspektivu o događaju te povećava osjećaj kontrole nad emocionalnim reakcijama. Sukladno tome, inhibiranje razgovora o doživljenoj traumi smanjuje sposobnost obrade tih iskustava. Dodatno, prema teoriji razgovorom potaknute ponovne procjene (45,48) podržavajući razgovor omogućava pojedincu artikulaciju, elaboraciju i razjašnjavanje relevantnih misli i osjećaja. Istraživanja dodatno pokazuju da je dijeljenje tuge s drugima jedan od najsnažnijih prediktora njenog razrješenja (50) pri čemu najviše razine depresivnosti u razdoblju od 6 mjeseci nakon spontanog pobačaja imaju žene (51) čiji partneri nisu željeli razgovarati o pobačaju.

### Doprinos pojedinih rizičnih i zaštitnih čimbenika u objašnjenju psihološke dobrobiti kod žena koje su doživjele spontani pobačaj

Regresijskim analizama, u konačnom modelu, objašnjeno je 37 % varijance depresivnosti, 28 % varijance anksioznosti te 41 % varijance stresa. Rezultati pokazuju da se dobro zdravstveno stanje pokazalo pozitivnim prediktorom psihološke dobrobiti (konkretnije bolje zdravstveno stanje u negativnoj je vezi s razinama anksioznosti, depresivnosti i stresa, odnosno u pozitivnoj vezi sa zadovoljstvom životom). Pritom je bitno istaknuti da je spontani pobačaj gubitak te da faze tugovanja između ostalog uključuju i fazu depresivnosti (40). Osim što se očituju emocionalnim simptomima, depresivnost, anksioznost i stres mogu se manifestirati i fizičkim simptomima kao što su umor, nedostatak energije, promjene u apetitu i spavanju, mišićna napetost, glavobolje, povišen krvni tlak, ubrzano disanje i poremećaji spavanja. Nalazi pokazuju da sudionice koje imaju djecu imaju manje simptoma depresivnosti što

in which case social support reduces stress by affecting the cognitive processing of information. In other words, social support helps consolidate the current information, provides a new perspective with regard to the event and increases the sense of control over one's emotional reactions. Accordingly, inhibiting conversations about the experienced trauma reduces the ability to process these experiences. Furthermore, according to the conversation-based reassessment theory (45, 48) supportive conversation enables the individual to articulate, elaborate and clarify the relevant thoughts and emotions. Studies have additionally shown that sharing one's grief with others represents one of the strongest predictors of its resolution (50), whereby the highest levels of depression in the period of six months after the miscarriage are experienced by women (51) whose partners did not want to talk about the miscarriage.

### Contribution of individual risk and protective factors to the explanation of psychological well-being in women who experienced a miscarriage

A total of 37% of the depression variance, 28% of the anxiety variance and 41% of the stress variance were explained through the final model of regression analyses. The results indicate that good health proved to be a positive predictor of psychological well-being (more precisely, better health is negatively associated with the levels of anxiety, depression and stress, i.e. it is positively associated with life satisfaction). At the same time, it is important to emphasize that miscarriage represents a loss and the stages of grief, among other things, also include a depression phase (40). In addition to being manifested through emotional symptoms, depression, anxiety and stress can also be manifested through physical symptoms such as fatigue, lack of energy, changes in appetite and sleep patterns, muscle tension, headaches, increased blood pressure, rapid breathing and sleep disorders. The findings

ponovno ukazuje na važnost majčinstva za žene pri čemu one koje nisu još uvijek ispunile tu ulogu spontanom pobačaju pripisuju veće značenje (18). Procjena negativnog utjecaja spontanog pobačaja na svakodnevni život (magnituda) kod žena pozitivan je prediktor depresivnosti i ovaj je nalaz u skladu s nalazima prethodnih istraživanja (20). Vrijeme proteklo od spontanog pobačaja negativan je prediktor anksioznosti i ovi rezultati podupiru nalaze prethodnih studija (46,52) pri čemu vremenom žene (koje su doživjele spontani pobačaj) osjećaju sve manje simptoma kao što su poteškoće s disanjem, drhtanje ruku, pojačano znojenje i teškoće s opuštanjem. Broj spontanih pobačaja u ovom istraživanju nije se pokazao značajnim korelatom psihološke dobrobiti, iako neka prethodna istraživanja ukazuju da su žene s ponavljajućim spontanim pobačajem pod povećanim rizikom za razvoj teškoća mentalnog zdravlja (53).

U skladu s pretpostavkama, izbjegavajuće suočavanje pokazalo je samostalni doprinos u objašnjenju varijance svih mjera psihološke dobrobiti. Premda se radi o neophodnoj strategiji neposredno nakon traumatskog događaja dugoročno korištenje ovih strategija suočavanja ometa procesuiranje traume i rješavanje problema čime pridonosi lošijem mentalnom zdravlju (25). Kvaliteta bračne komunikacije pokazala se negativnim prediktorom depresivnosti, anksioznosti i stresa što ukazuje na važnost održavanja bliskosti s partnerom nakon spontanog pobačaja (23,29,54). Dodatno, podrška okoline značajan je i negativan prediktor stresa što potvrđuje teze o zaštitnoj ulozi socijalne podrške od negativnih utjecaja stresa (24).

Kada je riječ o zadovoljstvu životom, konačnim regresijskom modelom objašnjeno je 38 % varijance zadovoljstva životom pri čemu su se kao značajni pozitivni prediktori izdvojili sljedeći prediktori: materijalne prilike, zdravstveno stanje, imanje djece, podrška okoline, kvaliteta

indikate that the participants who have children had fewer symptoms of depression, thus once again acknowledging the importance of motherhood for women, whereby those women who still have not fulfilled that role attribute a greater meaning to the experience of miscarriage (18). An assessment of the negative effects of miscarriage on women's everyday life (magnitude) is a positive predictor of depression and these findings are consistent with the findings of previous studies (20). Time passed since the miscarriage is a negative predictor of anxiety and these results support the findings of previous studies (46, 52) in which it was observed that, as time passes, women (who have experienced a miscarriage) feel fewer symptoms such as difficulty breathing, hand tremors, increased perspiration and difficulty relaxing. The number of miscarriages did not prove to be a significant correlate for psychological well-being in this study, although some previous studies indicate that women with recurring miscarriages are at an increased risk of developing mental health difficulties (53).

In accordance with the assumptions, it was observed that avoidance coping independently contributed to the explanation of variance of all psychological well-being measures. Although it is a necessary strategy immediately after experiencing a traumatic event, long-term use of these coping strategies disturbs the processing of the trauma and problem resolution, thus contributing to poorer mental health (25). It was observed that the quality of marital communication is a negative predictor of depression, anxiety and stress, indicating the importance of maintaining closeness with one's partner after experiencing a miscarriage (23, 29, 54). Furthermore, social support is a significant negative predictor of stress, which confirms the assumptions about the protective role of social support against the negative impacts of stress (24).

In terms of life satisfaction, the final regression model explains 38% of the life satisfaction variance, whereby the following predictors are emphasized as significant positive predictors: material circumstances, health status, having children,

bračne komunikacije (tablica 6). Izbjegavajuće suočavanje pokazalo se negativnim prediktorom zadovoljstva životom što je u skladu s drugim istraživanjima koji također ukazuju na negativne posljedice korištenja izbjegavajućeg stila suočavanja (25,55). Suprotno, bolje zdravstveno stanje pokazalo se pozitivnim prediktorom zadovoljstva životom što je u skladu s prethodnim istraživanjima, koja pokazuju da je opće zadovoljstvo životom povezano s općim zadovoljstvom zdravljem (56) te da je osobna procjena zdravlja jedan od ključnih faktora subjektivne dobrobiti i kvalitete života (57). Bračna komunikacija i podrška okoline pokazale su se pozitivnim prediktorima zadovoljstva životom što je u skladu s ranijim istraživanjima o pozitivnim učincima socijalne podrške (50,51,54). Dobiveni nalazi su u skladu s prethodnim istraživanjima i impliciraju na važnost osobnih procjena zdravlja, te na zaštitnu ulogu socijalne podrške kao i o mogućim negativnim posljedicama korištenja izbjegavajućih strategija suočavanja.

## Završna razmatranja

Rezultati provedenog istraživanja pružaju vrijedne spoznaje o čimbenicima koji pridonose simptomima depresivnosti, anksioznosti i stresa kod žena koje su doživjele spontani pobačaj i jedno je od rijetkih istraživanja ove tematike na hrvatskom uzorku. Rezultati ovog istraživanja, između ostalog, ukazuju na važnost socijalne podrške (partnera i okoline) te podržavajuće komunikacije s partnerom nakon gubitka trudnoće. Iako su provedenim istraživanjem utvrđeni neki značajni doprinosi, potrebno je istaknuti i njegove nedostatke. Prije svega budući da je riječ o korelacijskom nacrtu nije moguće utvrditi uzročno-posljedičnu vezu između ispitivanih varijabli. Također, istraživanje je provedeno korištenjem *online* upitnika koji se temeljio na samoiskazu. Važno je istaknuti da je uzorak sudionica dosta heterogen što se tiče vremena proteklog od spontanog pobačaja.

social support, quality of marital communication (Table 6). Avoidance coping strategies have proved to be a negative predictor of life satisfaction, which corresponds to other studies which also point to the negative consequences of the avoidance coping style (25, 55). In contrast, better health has proved to be a positive predictor of life satisfaction, which corresponds to the previously conducted studies the results of which have showed that general life satisfaction is associated with general satisfaction with one's health (56) and that the subjective health status assessment is one of the key factors for subjective well-being and quality of life (57). Marital communication and social support have proved to be positive predictors of life satisfaction, which is consistent with earlier studies on the positive effects of social support (50, 51, 54). The obtained results are in line with the previous studies and imply the importance of subjective health assessments, as well as the protective role of social support and the possible negative effects of using avoidance coping strategies.

## Final observations

The results of the conducted study have provided valuable insights into the factors contributing to the symptoms of depression, anxiety and stress in women who have experienced a miscarriage, and is one of the rare studies on this topic conducted on a Croatian sample. Among other things, the results of this study indicate the importance of social support (from the partner and the environment) and supportive communication with the partner after pregnancy loss. Although some significant contributions were observed in the conducted study, its shortcomings should also be pointed out. Above all, since this is a correlation design, it is not possible to establish a causal link between the variables examined. Furthermore, the study was conducted by means of an online questionnaire based on self-reporting. It should be emphasized that the sample of participants was quite heterogeneous in terms of the time passed since the miscarriage.

Osim važnih praktičnih implikacija, rezultate je nužno interpretirati i u sklopu bioetičkih razmatranja i to u prvom redu uzimajući u obzir emocionalni i psihološki utjecaj na pojedince i parove pri čemu je nužno pružanje podrške svima onima koji doživljavaju pobačaj uvažavajući tugu i traumu koje mogu nastati (što su između ostalog pokazali i rezultati provedenog istraživanja). I dalje je upitno prepoznaje li naše društvo gubitak koji se doživljava kroz pobačaj te bi iz bioetičke perspektive bilo jako bitno potaknuti rasprave o tome kako zdravstveni djelatnici, obitelji i zajednice mogu pružiti podršku parovima (ističući važnost priznavanja gubitka i pružanje podrške u procesu žalovanja). Dodatno, kada dođe do spontanog pobačaja nužno je razmotriti i etičke implikacije medicinskih intervencija (kiretaža, medikamentna terapija, praćenje i čekanje) kao i s time povezane kulturne i religijske perspektive (razumijevanje i uvažavanje različitih reakcija tugovanja i pružanja podrške nakon spontanog pobačaja) pri čemu se ističu pravo na autonomiju žene nad vlastitim tijelom, razmatranje spontanog pobačaja kao prirodne pojave ili medicinskog problema (koji zahtijeva intervenciju) te pitanje moralnog statusa fetusa u kontekstu emocionalne povezanosti s fetusom i tugovanjem nakon gubitka trudnoće (58,59).

Ključne praktične implikacije provedenog istraživanja povezane su sa psihoeducacijom o važnosti pružanja podrške neposredno nakon spontanog pobačaja, njegovim najčešćim posljedicama te rizičnim faktorima koji pridonose pojavi teškoća nakon ovakvog događaja. Zdravstveni djelatnici trebali bi njegovati empatičan pristup te objasniti pacijentici rizike i ograničenja pojedinih intervencija kod spontanog pobačaja te po potrebi pružiti i osigurati psihološku podršku (60). Rezultati ovog istraživanja jasno pokazuju da je važno i promicanje preventivnih aktivnosti prema zaštiti fizičkog zdravlja jer je subjektivna procjena

Besides the important practical implications, the results must be interpreted within the bioethical considerations as well, primarily taking into account the emotional and psychological impact on individuals and couples, whereby it is necessary to provide support to all those experiencing miscarriage by taking into consideration the grief and trauma that may occur (which, among other things, was presented in the results of the conducted study as well). It is still questionable whether our society recognizes the loss experienced through miscarriage and, from a bioethical perspective, it would be of utmost importance to encourage discussion on how healthcare professionals, families and communities can provide support to couples (by emphasizing the importance of recognizing their loss and supporting them in their grieving process). Additionally, in case of a miscarriage, it is also essential to consider the ethical implications of medical interventions (curettage, medication therapy, monitoring and waiting), as well as the associated cultural and religious perspectives (understanding and acknowledging the different reactions in grief and providing support after a miscarriage), whereby emphasis should be placed on a woman's right to bodily autonomy, consideration of the miscarriage as a natural phenomenon or a medical issue (requiring intervention), and the issue of the moral status of the fetus within the context of emotional connection with the fetus and grieving after pregnancy loss (58, 59). The key practical implications of the conducted study are associated with psychoeducation on the importance of providing support immediately after a miscarriage, its most common consequences and the risk factors contributing to the occurrence of difficulties after such an event. Healthcare professionals should foster an empathetic approach and explain to the patient the risks and limitations of each intervention in the event of a miscarriage, and they should also provide and ensure psychological support if necessary (60). The results of this study clearly show that promoting preventive activities towards the protection of physical health is also important, because women's sub-

fizičkog zdravlja žena značajni prediktor mjera psihološke dobrobiti. Kako bi se prekinula društvena šutnja nakon spontanog pobačaja, buduća istraživanja trebala bi se usmjeriti na proučavanje reakcija tugovanja kod žena i muškaraca i to kako bi vremenom spontani pobačaj bio prepoznat kao psihološki, a ne samo kao medicinski događaj (9). Naime, rezultati ovog istraživanja pokazuju da približno 30 % sudionica doživljava ozbiljne i/ili izrazito ozbiljne simptome anksioznosti, dok oko 25 % sudionica izvještava o ozbiljnim i/ili izrazito ozbiljnim simptomima depresivnosti i stresa nakon spontanog pobačaja što ukazuje na važnost ciljanih intervencija.

jective physical health assessment is a significant predictor of psychological well-being measures. In order to put an end to the social silence following a miscarriage, future studies should focus on examining the grieving reactions among women and men, so that with time miscarriage could be recognized as a psychological, and not only medical event (9). Namely, the results of this study have shown that approximately 30% of the participants experienced serious and/or extremely serious symptoms of anxiety, while approximately 25% of the participants experienced serious and/or extremely serious symptoms of depression and stress after a miscarriage, thus emphasizing the importance of targeted interventions.

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