Korištenje društvenog marketinga i modernih tehnologija u pristupu internaliziranim problemima

/ The Use of Social Marketing and Modern Technology in the Approach to Internalized Problems

Miranda Novak[1], Katarina Kavić[2]

[1]Sveučilište u Zagrebu, Edukacijsko-rehabilitacijski fakultet, Odsjek za poremećaje u ponašanju, Zagreb, [2]Centar za odgoj i obrazovanje Velika Gorica, Velika Gorica, Hrvatska

[1]Faculty of Education and Rehabilitation Sciences, Department of Behavioural Disorders University Campus Borongaj, Zagreb, [2]Centre for Upbringing and Education Velika Gorica, Velika Gorica, Croatia

Rapidni razvoj medija i komunikacijske tehnologije nezaustavljivo mijenja način života, ophođenja i navike ljudi. Uz navedeno, ima i izniman utjecaj na njihovo mentalno zdravlje. Cilj ovog rada je pregledom literature razmotriti potencijale društvenog marketinga i modernih tehnologija u prevenciji i ranom tretmanu internaliziranih problema. Istraživanja internaliziranih problema ukazuju na njihovu stabilnost i tendenciju umnožavanja s porastom dobi. Također, depresivne i anksiozne smetnje povećavaju rizik od suicida, somatskih smetnji i razvoja raznih fizičkih bolesti. Literatura naglašava mogućnosti korištenja društvenog marketinga za prevenciju javnozdravstvenih problema ističući da se društveni marketing dobro poklapa s generalnim principima prevencije te načelima promocije mentalnog zdravlja. Muñoz, jedan od vodećih znanstvenika u području tehnologija i mentalnog zdravlja, korištenje tehnologije u odgovoru na emocionalne, ponašajne i mentalne probleme smatra imperativom našeg vremena: sve je više dokaza da je *on-line* pristup potencijalno učinkovit, s mogućnosti širokog obuhvata populacije, te štedi brojne ljudske i materijalne resurse. Moderno doba zahtijeva programe i aktivnosti koje će biti dostupne posebno ako lokalni sustav brige i skrbi nije dovoljno razvijen te ne postoji dovoljno resursa za znanstveno utemeljene intervencije, a na taj izazov mogu odgovoriti razne medijske kampanje te internet intervencije. Rad predstavlja i izbor kampanji te primjere *on-line* intervencija za internalizirane probleme.

/ Rapid development of media and communication technologies is unstoppably changing our way of life, habits and means of communication. In addition, it has an enormous effect on our mental health. The aim of this paper was to explore the potentials of social marketing and modern technologies in prevention and early treatment of internalized disorders through the review of literature. Research on internalized problems shows their stability and tendency to exacerbate during the period of maturation. Additionally, depression and anxiety symptoms contribute to the risk of suicide, somatic complaints and physical illness. The literature stressed the possibilities of social marketing in prevention of public health problems. One of the leading researchers of technology and mental health issues, Muñoz, perceives the use of technology as the imperative of our time; more and more evidence shows the online approach to be potentially effective for a wide population and cost-effective regarding material and human resources. Modern times require programmes and activities available to the public when the local system of care is not developed and no evidence-based intervention is available. This paper presents the selection of good practices, campaigns and online interventions for internalized problems.

ADRESA ZA DOPISIVANJE /
CORRESPONDENCE:

doc. dr. sc. Miranda Novak
Edukacijsko-rehabilitacijski fakultet
Borongajska cesta 83f
10 000 Zagreb, Hrvatska
E-pošta: miranda.novak@erf.hr

KLJUČNE RIJEČI / *KEY WORDS*:

Internalizirani problemi / *Internalized problems*
Mentalno zdravlje / *Mental health*
Društveni marketing / *Social marketing*
E-mentalno zdravlje / *E-mental health*

UVOD: TEHNOLOGIJA U SLUŽBI PREVENCIJE

U suvremenoj kulturnoj i tehnološkoj revoluciji proizvodnja i distribucija raznih sadržaja posredovane su pametnim telefonima, računalima, tabletima, igraćim konzolama i drugim pametnim uređajima koji su povezani internetom. Rapidni razvoj medija i komunikacijske tehnologije nezaustavljivo mijenja način života, ophođenja i navike ljudi. Uz navedeno ima i izniman utjecaj na njihovo mentalno zdravlje (1,2). Ott i Mack navode da su nam gotovo sve spoznaje koje imamo posredovane sredstvima masovnih komunikacija te u masovne medije ubrajaju ne samo radio i televiziju nego i samu poruku, pojedinca, knjige, časopise, video igre, računala te sve druge medije koje pojedinac može koristiti (2). Novi zahtjevi i sve inovativnija rješenja više nisu prisutna samo u području informiranja, zabave i slobodnog vremena već su sve češća i u obrazovanju i u znanosti (3). Razne se discipline koriste *on-line* prikupljanjem podataka, razvijaju se aplikacije za mobitele kojima se dolazi do povratnih informacija nekoliko tisuća ljudi a popularne web stranice poput Amazona i njegovog projekta *Mechanical Turk* (https://www.mturk.com/) sve češće postavljaju platforme „građanin znanstvenik" putem kojih se dizajniraju ogromne studije (3).

Uz tehnološki napredak mijenja se i slika mentalnog zdravlja: brojevi pokazuju da je 38,2 % ukupne populacije u zemljama Europske unije imalo jedan mentalni poremećaj u proteklih dvanaest mjeseci (4), dok je u istraživanju 2005. godine taj broj iznosio 27,4 %. Pritom valja spomenuti da su u Europskoj uniji uz ovisnost o alkoholu i drogi, najčešći anksiozni poremećaji, nesanica i depresija (4). Podatci Svjetske zdravstvene organizacije iz 2014. ukazuju na činjenicu da se u zemljama niskog i srednjeg ekonomskog statusa poput Hrvatske na mentalno zdravlje troši manje od dva dolara po pojedinom stanovniku (5,6).

INTRODUCTION: TECHNOLOGY IN THE SERVICE OF PREVENTION

In the contemporary cultural and technological revolution, the production and distribution of different content is mediated by smartphones, computers, tablets, gaming consoles and other smart devices which are all connected via the internet. Rapid media and communication technology development is unstoppably changing the way people live and relate to each other as well as their habits. This also has an extraordinary impact on mental health (1,2). Ott and Mack state that currently almost all of our knowledge is mediated through the means of mass communication, which they define as not only radio and television but also the message itself, the individual, books, magazines, video games, computers and all other media that can used by the individual (2). Increasingly innovative solutions are no longer requirements just for the areas of communicating information, entertainment and leisure but are getting more and more present in education and science as well (3). Various disciplines use online data collection and develop mobile applications used to retrieve feedback of several thousands of people, while high-traffic websites such as Amazon with its *Mechanical Turk* (https://mturk.com/) project set up more and more "citizen scientist" platforms used to design large studies (3).

Along with technological progress, the picture of mental health is also changing: figures show that in the last twelve months 38.2 percent of the total EU population had one mental health disorder (4), while in a 2005 study this number amounted to 27.4 percent. At this point it should be mentioned that the most common disorders recorded in the EU along with alcohol and drugs addiction are anxiety disorders, insomnia and depression (4). World Health Organization data from 2014 show that in low- and middle-income countries like Croatia less than two dollars per person are being spent on mental health (5,6). For the most part, these funds are aimed to-

Glavnina tih sredstava usmjerava se na brigu za pacijente i psihijatrijske klinike dok samo 41 % zemalja članica ima jedan do dva programa promocije mentalnog zdravlja ili pak preventivna programa (5). Kako su u manje razvijenim zemljama gdje mentalno zdravlje nije javno prepoznata tema ulaganja ograničena ili pak nepostojeća, raskorak između potreba i dostupnih usluga je velik (6). Posljedice takve situacije pogađaju ne samo pojedinca i njegovu obitelj već i poslodavce i vlade zbog smanjene produktivnosti na poslu, izdataka za zdravstvo i socijalnu skrb (6). Globalni troškovi depresivnih i anksioznih smetnji procjenjuju se na milijun američkih dolara godišnje (6).

Iako zdravstveni sustav može pružiti podršku, između 20 % do 30% ljudi nije uključeno ni u kakav tretman (5,1). Razlozi za to su brojni: u manje razvijenim područjima nedostaje usluga, primjerice savjetovališta ili pak educiranog osoblja, usluge su manje dostupne a sustav je najčešće opterećen tretmanom (1). Sva se ova ograničenja ne mogu riješiti samo rastom postojećeg zdravstvenog sustava (1,7); rješenja trebaju biti inovativna i u skladu s duhom vremena kako bi se obuhvatio što veći broj ljudi te umnožili načini provedbe raznolikih intervencija (1,6,8). Inovacije uključuju moderne informacijske i komunikacijske tehnologije te digitalizaciju usluga u brizi za mentalno zdravlje. Razne studije pokazuju da moderne tehnologije u području mentalnog zdravlja mogu doprinijeti prevenciji, ranoj intervenciji, tretmanu i očuvanju dobrobiti (1,6,8,9).

Kako u Hrvatskoj područje politike za mentalno zdravlje nije dostatno razvijeno, posebno područje prevencije i ranih intervencija (10), cilj ovog rada je pregledom literature razmotriti potencijale inovativnih pristupa u području mentalnog zdravlja. Da bi se obuhvatili svi netradicionalni pristupi, bit će prikazan pregled područja e-mentalnog zdravlja, društvenog marketinga i medijskih kampanji te ozbiljnih

wards patient care in psychiatric clinics, while only 41 percent of member countries have one to two preventative or mental health promotion programs (5). In economically underdeveloped countries where mental health is not a publicly recognized issue, investments are limited or even non-existent, and a high discrepancy has been found between needs and services accessible (6). Due to lesser work productivity and increased costs for healthcare and social welfare, the consequences of this situation are felt not only by individuals and their families but also by their employers and governments (6). Global expenditure for depression and anxiety difficulties is estimated at a trillion American dollars per year.

Although the healthcare system can provide support, between 20 and 30 percent of people receive no treatment at all (1,5). Many reasons contribute to this predicament: less developed areas have insufficient services, e.g. not enough counselling centres or educated staff and they are less accessible and the system is overburdened (1). Neither of these limitations can be dealt with solely through the growth of the existing healthcare system (1,7); instead, solutions need to be innovative and aligned with the spirit of the times in order to include the largest possible number of people and multiply the implementation methods of different interventions (1,6,8). Innovations include modern information and communication technologies as well as digitalised services in the care for mental health. Various studies show that modern technologies in the area of mental healthcare can contribute to the prevention, early intervention, treatment and protection of wellbeing (1,6,8,9).

Since mental health policy in Croatia is underdeveloped, with that being the case especially for prevention and early intervention (10), the aim of this paper was to provide a literature overview and consider the potentials of an innovative approach in the support of mental health. In order to include all the non-traditional approaches, an overview will be presented of the field of e-men-

igara. Iako je područje novo, rapidno se širi pa pregled svih dostupnih informacija prelazi opseg jednog rada. Kako je područje znanstvenog i stručnog djelovanja autorica prevencija, u fokusu rada su kampanje i intervencije namijenjene internaliziranim problemima. Eksternalizirani problemi također su tema modernih pristupa, no nešto češće je fokus na već postojećoj problematici i njegovom tretmanu, primjerice kod pijenja ili pušenja.

E-MENTALNO ZDRAVLJE

E-mentalno zdravlje se može definirati kao generički termin koji opisuje korištenje informacijskih i komunikacijskih tehnologija, posebice interneta, za osnaživanje mentalnog zdravlja. Taj termin obuhvaća korištenje digitalne tehnologije i novih medija za trijažu, promociju, prevenciju, ranu intervenciju i tretman, no označava i profesionalnu obuku stručnjaka koji se bave mentalnim zdravljem te *on-line* istraživanja u tom području. Najčešća tema intervencija na internetu je depresija kao jedan od primarnih javnozdravstvenih problema, a slijede je teme pijenja, pušenja te anksiozne smetnje (10). Muñoz (11), jedan od vodećih znanstvenika u tom području, korištenje tehnologije u odgovoru na emocionalne, ponašajne i mentalne probleme smatra imperativom našeg vremena: sve je više dokaza da je *on-line* pristup potencijalno učinkovit, s mogućnosti širokog obuhvata populacije, te štedi brojne ljudske i materijalne resurse. Kako bi se utjecalo na zdravstvene nejednakosti, moderno doba zahtijeva intervencije koje će biti dostupne ljudima ako lokalni sustav brige i skrbi nije dovoljno razvijen i ako ne postoji dovoljno resursa za znanstveno utemeljene intervencije, a na taj izazov mogu odgovoriti internet intervencije bilo da su osmišljene kao promocija mentalnog zdravlja ili pak preveniraju ili smanjuju probleme. Jednom napravljen *on-line* program ili pak jednostavna web

tal health, social marketing and media campaigns and serious games. Although this area of research is quite new, its development is rapid, so one paper will not be able to provide the overview of all available data. Since the authors' area of expertise and research is that of prevention, the focus of this paper will be on campaigns and interventions aimed at internalized problems. Modern approaches have dealt with externalized problems as well but have in this respect been more frequently concerned with the treatment, such as drinking or smoking.

E-MENTAL HEALTH

E-mental health can be defined as a generic term describing the use of information and communication technologies, especially internet, to encourage mental health. This term includes the use of digital technology and new media for triage, promotion, prevention, early intervention and treatment, but also denotes professional training of mental health experts and online research in this area. Depression as one of the primary public health concerns is the most often addressed topic of internet interventions, followed by drinking, smoking and anxiety problems (10). Muñoz (11), one of the leading experts in the area, considers the use of technology in response to emotional, behavioural and mental problems as the imperative of our time: there is more and more evidence in favour of potential effectiveness of an online approach which has the ability to reach a wide spectrum of the population and save a lot of human and material resources. In order to influence health inequalities, modern times demand interventions that can be available even when the local healthcare and welfare system is not sufficiently developed or when resources for scientifically proven interventions are lacking. Internet interventions can rise to this challenge, whether they are formulated as mental health promotion or used to prevent or reduce problems. Once de-

stranica dostupna je širokoj populaciji te su ulaganja puno manja nego kod intervencija licem u lice. Kod *on-line* intervencija postoji mogućnost jednostavnog širenja, čak i među raznim zemljama, uz simultano korištenje, a da se išta oduzima originalno zamišljenoj ciljnoj skupini (11). Takav pristup može biti pogodan za one osobe koje preferiraju *on-line* pristup tretmana i intervencija naspram pristupa licem u lice (12). Što se tiče djece i mladih, *on-line* intervencije mogu biti dobar način pristupanju toj populaciji jer se oni za računalom osjećaju osnaženo u radu na sebi s obzirom na anonimnost koju im internet daje, a neki podatci upućuju na to kako jedan dio populacije preferira isključivo takav pristup. Internet intervencije mogu se koristiti i kao ekstenzija raznih servisa u zajednici te njihova svrha nikako nije zamjena ljudskih kapaciteta i osobnog kontakta već nadopuna postojećih i povećanje kvalitete. Moderne tehnologije ustvari pružaju barem neku mogućnost osiguravanja učinkovitih programa onoj populaciji koja nije obuhvaćena tradicionalnim pristupom i upravo je taj dio ključan za osiguravanje bolje kvalitete života i mentalnog zdravlja cijele populacije (11). Uz navedeno, internet intervencije mogu se koristiti kada su ljudi uključeni u neku listu čekanja za intervenciju, kada nema mjesta u nekom grupnom programu ili pak kao dodatak programu u koji su uključeni, ali i nakon završenog programa kako bi se prevenirao povratak simptoma. Internet i računalo mogu biti dobra rješenja i za onu populaciju koja nema velikih problema, ali ima neke smetnje, no ne žele se javiti za pomoć zbog straha od stigme (12,13).

Razne studije i meta-analize pokazuju da internet i kompjuterske intervencije mogu biti učinkovite, i u preventivnom i u tretmanskom smislu (13). Nedavna meta-analiza pokazala je kako su i intervencije učinkovite u tretiranju anksioznih i depresivnih simptoma (14). Van Straten, Cuijpers i Smits (15)

signed, an online programme or even a simple widely-accessible website requires much less investment than face-to-face interventions. Online interventions can be easily disseminated, even across countries, and used simultaneously in different areas without anything being taken away from the originally intended target group (11). They can be appropriate for those individuals who prefer online treatment and intervention instead of the face-to-face approach (12). As far as children and young people are concerned, online interventions could serve as a good way to reach this population, because due to the anonymity of internet they provide a feeling of empowerment while tackling self-development issues. Some data show that a part of population opts exclusively for this approach. Internet interventions can be used as an extension of different community assistance programmes as their purpose is by no means to replace human capacities and personal contact but rather to complement and enhance them.

In fact, modern technologies provide at least some sort of effective opportunity to that segment of population which is left out of traditional approaches, and it is this very aspect that is crucial for ensuring better quality of life and mental health of the entire population (11). Internet interventions can also be used during the wait-list periods, when group programmes are overfilled, as an addition to the programme people already participate in or after the completion of the programme in order to prevent the remission of the symptoms. Internet and computers could be useful sources of support for that segment of population which does not experience great difficulties but instead has some mild disturbances and avoids asking for help due to the fear of stigma (12,13).

Various studies and meta-analyses have shown that internet and computer interventions could be effective both as preventative and treatment measures (13). A recent meta-analysis has found online interventions to be effective in

opisuju učinke *on-line* programa za samopomoć koji su koristili sudionici sa simptomima depresije, anksioznosti i stresa povezanog s poslom te demonstriraju klinički i statistički značajne učinke na smanjenje simptoma. Spek i suradnici (14) proveli su meta-analize internet intervencija za tretman poremećaja raspoloženja i anksioznosti te dokazali da se veličine učinka kreću od 0,32 do 0,96. Osim interneta, veliki potencijal za brigu o mentalnom zdravlju i promociju mentalnog zdravlja imaju i mobilni telefoni. Novije studije Morrisa i suradnika (16) donose dokaze da su mobilni telefoni učinkovit alat u praćenju emocionalnih stanja i obrazaca kod stresa, povećavanju samo-regulacije, dok je druga studija prezentirala učinkovitost u prikupljanju podataka i monitoriranju stanja kod depresivnih (16).

DRUŠTVENI MARKETING

Među najčešće citiranim autorima u literaturi o društvenom marketingu su Kotler i Zaltman koji su 1971. godine objavili članak pod nazivom „*Social marketing: an approach to planned social change*" u časopisu „*Journal of Marketing*". Noviji pristupi društveni marketing definiraju kao granu marketinga koja se fokusira na modifikaciju ponašanja ljudi kako bi unaprijedila i promicala individualnu i opću dobrobit društva koristeći principe komercijalnog marketinga. Dok je fokus komercijalnog marketinga prodavanje dobara i usluga uz postizanje financijske dobiti, društveni marketing potiče poželjno ponašanje nastojeći utjecati na trenutno ponašanje ciljne populacije (17,18). Društveni marketing pred sobom ima mnogo zahtjevniji i izazovniji zadatak, jer često ciljanoj populaciji promovira mijenjanje uobičajenog i ugodnog načina života, odricanje ponašanja poput pušenja ili pak promiče odolijevanje vršnjačkom pritisku, izlaganje neugodnim situacijama poput davanja krvi, us-

the treatment of anxiety and depression symptoms (14). Van Straten, Cuijpers and Smits (15) outlined the impact of online self-help programs used by participants battling depression, anxiety and work-related stress and have demonstrated clinically and statistically significant results in the reduction of these symptoms. Speck et al. (14) conducted meta-analyses of internet interventions for the treatment of mood disorders and anxiety and proved the effect size to range between 0.32 and 0.96. Along with internet, mobile phones also hold great potential for mental healthcare and the promotion of mental health. Newer studies by Morris et al. (16) show mobile phones to be an effective tool in monitoring emotional states and stress patterns, as well as aiding self-regulation, while another study has shown their effectiveness in data collection and monitoring of the mood of those affected by depression (16).

SOCIAL MARKETING

In 1971, Kotler and Zaltman, who must be among the most cited authors in literature on social marketing, published a paper titled "Social Marketing: An Approach to Planned Social Change" in *The Journal of Marketing*. Newer approaches define social marketing as a marketing branch focused on behaviour modification in order to promote and encourage individual and collective well-being through the use of commercial marketing principles. And while commercial marketing is focused on selling goods and services in order to achieve financial gains, social marketing stimulates desired behaviour by striving to influence the existing behaviour of the target population (17,18). The task of social marketing is much more demanding and challenging because it often includes promotion of quitting habitual and pleasant behaviour such as smoking or resisting peer pressure, promotion of unpleasant situations such as blood donation, establishing healthy habits such as

postavljanje zdravih navika kao što je redovita tjelovježba ili pak trošenje većih financijskih sredstava za kvalitetnije namirnice (19). Kao i kod komercijalnog marketinga, društveni marketing podrazumijeva razmjenu. Kod komercijalnog marketinga osoba daje financijska sredstva kako bi kupila određeni proizvod ili uslugu koja će zadovoljiti njene potrebe, dok kod društvenog marketinga proces razmjene treba kompleksnije razumijevati, jer populaciji treba ponuditi nešto atraktivno kako bi ona modificirala, odbacila ili usvojila određena ponašanja. Primjerice, traži se da populacija manje gleda televiziju i više se kreće, u zamjenu za poboljšano zdravlje (20).

Wallack (21) naglašava mogućnosti korištenja društvenog marketinga za prevenciju javnozdravstvenih problema ističući da se društveni marketing ustvari dobro poklapa s generalnim principima prevencije ponašajnih i mentalnih problema te načelima promocije mentalnog zdravlja. Strategijskim pristupom društveni marketing može podržati smanjivanje incidencije nekih problema, usvajanje te održavanje zdravijih stilova života. Društveni marketing i javnozdravstveni pristup imaju isti cilj, oba se bave okruženjem te nastoje utjecati na čimbenike iz okruženja kako bi osnažili ciljanu skupinu. Isti autor istodobno kritizira načela zdravstvene politike i načela marketinga upozoravajući na problem da najveći naglasak stavljaju na individualne rizične čimbenike i slobodni izbor pojedinca što zanemaruje utjecaj socijalnih determinanti i uronjenost individue u okruženje. Poziva na odgovornije sagledavanje socijalnog, ekonomskog i političkog konteksta kako bi se razumjelo ponašanje te smatra da je pojednostavljeno i individualističko poimanje zdravstvenih problema lišeno političkih i ekonomskih ograničenja i utjecaja (21).

Upravo zbog toga je bitno u spajanju društvenog marketinga i područja promocije zdravlja imati na umu važnost višerazinskog strategijskog pristupa te utjecaja okruženja, zajednice i

regular exercise or allocating more money to higher-quality groceries (19). Similar to commercial marketing, social marketing also implies transaction. In commercial marketing one gives money to buy a specific product or service that would satisfy their needs, while social marketing transaction is more complex because people need to be offered something attractive in order for them to modify and abandon old or adopt new behaviours. For example, one of the aims of social marketing is to make people spend less time in front of their TV sets and do more exercise, in return for improved health (20).

Wallack (21) stresses the opportunities of social marketing use in the prevention of public health issues, emphasizing that social marketing fits well with the general principles of prevention of behavioural and mental problems as well as with the concepts of mental health promotion. With strategic approach, social marketing can support a decrease in incidence of some problems as well as adoption and sustainment of healthier lifestyles. Social marketing and public health services share the same goal, deal with environmental circumstances and try to influence them in order to empower their target groups. However, this author criticises the principles of both public health policy and marketing principles, warning that most of their emphasis is put on individual risk factors as well as individuals' free choices which disregards the influence of social determinants and individuals' immersion in their environment. He calls for a more responsible examination of the social, economic and political context in order to gain better understanding of the behaviours, and believes the over-simplified and individualistic understanding of health problems to be lacking in political and economic dimensions of limitations and influences (21).

For this exact reason, when connecting social marketing and health promotion it is important to keep in mind the influence of the environment, community and society in general

društva općenito. Spektar primjene društvenog marketinga ide od javnog zdravstva (pušenje cigareta, pretilost, HIV/AIDS, itd.), prevencije mentalnih poremećaja (suicidi, anksioznost, depresija, ovisnosti), prevencije ozljeda (vožnja u pijanom stanju, ozljede glave, uporaba sigurnosnog pojasa tijekom vožnje, itd.), zaštite okoliša (smanjenje opasnog otpada, zagađenje zraka, požari, itd.) do mobilizacije zajednice (donacija organa, glasanje, udomljavanje napuštenih životinja, itd.) (18,19).

and how important it is to foster a multi-level strategic approach. Application of social marketing includes public health (cigarette smoking, obesity, HIV/AIDS, etc.), mental health disorders prevention (suicide, anxiety, depression, addiction), injury prevention (drunk driving, head injuries, using seat belt while driving, etc.), environment protection (decrease in hazardous waste, air pollution, fires, etc.) and social mobilization (organ donation, voting, adoption of abandoned pets, etc.) (18,19).

PRIMIJENJENE IGRE: OZBILJNE IGRE I GEJMIFIKACIJA U MENTALNOM ZDRAVLJU

Kada se govori o kompjuterskim igricama i mentalnom zdravlju, u literaturi se zamjećuju dva glavna smjera tzv. primijenjenih igara: jedan koji se bavi tzv. „ozbiljnim igrama“ koje koriste igru kao centralni medij te drugi pristup, engl. *gamification*, u daljnjem tekstu gejmifikacija, koji koristi samo elemente igara (22). Ozbiljne igre su igre čija primarna namjena nije zabava, uživanje i upotpunjavanje slobodnog vremena već se usmjeravaju na obrazovanje, usvajanje vještina, promjenu ponašanja i unaprjeđenje zdravlja, a usputno pritom zabavljaju korisnike (22, 23). *Gejmifikacija* se odnosi na dodavanje elemenata igara u neki drugi kontekst. Taj tip intervencija možda ne funkcionira kao iskustvo igranja, ali ima neke elemente koji podsjećaju na kompjutorske igrice: bodove, nagrade unutar intervencije, neki tip zahtjeva ili pak potrage (22,23).

Na potencijale primijenjenih igara ukazuju sljedeći brojevi: u Sjedinjenim Američkim Državama 2015. godine više od 40 % ukupne populacije provodi u prosjeku 3 ili više sati/tjedan u igranju kompjuterskih igrica (22). Fleming i suradnici u svom preglednom radu pokazali su da primijenjene igre imaju različite ciljeve i namjenu, te variraju u stupnju kompleksnosti tehnologije i interakcije s korisnikom (22). Nji-

APPLIED GAMES: SERIOUS GAMES AND GAMIFICATION IN MENTAL HEALTH

Two main directions are being taken in the literature treatment of computer games and mental health when it comes to applied games: one dealing with so-called "serious games" which use the game as their central medium, and the other is that of gamification, which uses only some elements of game-playing (22). Serious games are games that are designed for a primary purpose other than entertainment, enjoyment and leisure and are aimed at education, skill development, behavioural changes and betterment of health, while entertaining their users at the same time (22,23). Gamification refers to application of game elements in other contexts. This type of intervention may not function as a gaming experience but has some elements evocative of computer games: point collection, rewards as part of intervention, some type of quest or search (22,23).

The following figures express the potential of applied games: in 2015 more than 40 percent of the general population of the USA spent on average three or more hours a week playing computer games (22). In their review paper Fleming et al. have shown various aims and purposes of applied games which differ in the degree of technological complexity and user interaction (22). Their review paper studied

hov pregledni rad bavio se igrama temeljenim na vježbanju, virtualnom stvarnošću, ozbiljnim igrama temeljenim na KBT-u, igrama integriranim s društvenim mrežama te *biofeedback*-om. Tri pregledna rada koja navode opisivala su šest tipova tj. konkretnih primijenjenih igara od kojih su gotovo svi usmjereni na prevenciju depresije a opisana je i virtualna stvarnost „*Virtual Iraq*" koji se bavi smanjivanjem traumatskih reakcija (22). Autori zaključuju da kvalitetne primijenjene igre u mentalnom zdravlju imaju značajne učinke na korisnike: povećavaju koncentraciju, unaprjeđuju sposobnost zadržavanja informacija, facilitiraju procese dubokog učenja te promoviraju promjene u ponašanju (22). Fleming i suradnici u svom preglednom radu pokazuju da bi se tradicionalni znanstveno-utemeljeni pristupi mogli prevesti u formate primijenjenih igara te da navedeno može dovesti i do širenja obuhvata populacije te potencijalno do njihove povećane motivacije (22). Na taj bi se način moglo osigurati korištenje višestrukih mehanizama za postizanje promjene: terapijski procesi udružuju se s privlačnošću igranja, željom za natjecanjem i zabavom.

APLIKACIJE ZA MOBITELE

Podatci za 2012. pokazuju da mobilne telefone koristi više od 91 % ukupne svjetske populacije, tj. 4,3 milijarde korisnika (24), dok je bežični internet signal dostupan 85 % svjetske populacije (25). U manje razvijenim zemljama, gdje je i manja vjerojatnost dostupnosti interneta, ekspanzija korištenja mobilnih telefona je zapanjujuća: od manje od milijuna ljudi 2002. do 40 milijuna 2011 godine (25). Prva mobilna aplikacija bila je dostupna za skidanje 2008. godine, a od tada svjedočimo rapidnom razvoju područja: procjene su da je do 2012. godine razvijeno više od milijun i pol aplikacija a da je oko 14000 raznih aplikacija usmjereno na zdravlje u širem smislu (24). Od 14.000 raznih aplikacija, 6 % usmjereno na mentalno zdravlje a 18 % na pu-

games based on exercise, virtual reality, serious CBT-based games, social network integrated games and biofeedback. The three review papers that they mention described six types of specific applied games, almost all of which aim at preventing depression. They also addressed one virtual reality "*Virtual Iraq*", which aims at reduction of traumatic reactions (22). The authors conclude that high-quality applied games have significant effects on the mental health of users: they increase concentration, improve information retention, facilitate deep learning processes and promote behavioural changes (22). Fleming et al. show that traditional scientifically-based approaches can be translated into applied game formats, which could lead to wider coverage and potentially increased motivation (22). This could be ensured through the use of multiple mechanisms to achieve change: therapeutic processes joined with the appeal of play, the desire to compete and have fun.

MOBILE PHONE APPLICATIONS

Data for 2012 show that over 91 percent of the entire world population uses mobile phones, which is 4.3 billion users (24), while wireless internet is accessible to 85 percent of world population (25). In less developed countries, where the availability of wireless signal is lower, the expansion of mobile phone use is astounding: from less than a million users in 2002 to 40 million in 2011 (25). The first mobile phone application was downloadable in 2008, and ever since we have witnessed rapid development of this area: it is estimated that more than a million and a half mobile applications were developed prior to 2012, out of which around 14,000 different applications are aimed at health in the broader sense of the word (24). Out of these 14,000 applications, 6 percent deal with mental health, and 18 percent with smoking, sleeping, stress and relaxation (24). That is why smartphone-provided mental health support has immense potential:

šenje, spavanje, stres i relaksaciju (24). Podrška mentalnom zdravlju putem pametnih mobilnih telefona stoga ima iznimne potencijale: aplikacije za pametne telefone su iznimno fleksibilne, omogućuju visoku dozu privatnosti, tajnosti te autonomije, uz već poznati medij i tehnologiju; mogu se koristiti u bilo kojem kontekstu te su uvijek pri ruci korisniku (24,25). Postaju novi oblici traženja podrške i pomoći za one s problemima s mentalnim zdravljem ali i za djelatnike; jer nude instant pristup informacijama, mogućnost podešavanja podsjetnika, višekratnu uporabu tokom dana i vježbu što dovodi do velike ekspanzije (24,25). Iako ništa ne može zamijeniti osobnu komunikaciju i podršku, posebice psihoterapiju, čini se nemogućim da će svi oni koji trebaju pomoć zaista dobiti i taj najadekvatniji oblik. Mobilne aplikacije mogle bi služiti kao podrška učinkovitijem radu, primjerice u razvijenijim zemljama je odnos broja mobitela i zaposlenih stručnjaka 8000 naprama jedan dok se brojke penju i na 30000 naprama jedan u najmanje razvijenim dijelovima svijeta (25). Istraživanja učinkovitosti mobilnih aplikacija u mentalnom zdravlju još su uvijek rijetka, bez obzira na veliku dostupnost. Programeri i razvojni timovi ponekad nisu zainteresirani za istraživanje i evaluaciju aplikacija. Čini se da učinci nekih aplikacija opadaju s vremenom, a objavljene studije ne navode jednoznačne rezultate (24,25), no bez obzira na navedeno, riječ je o velikom potencijalu za područje mentalnog zdravlja.

smartphone applications are extremely flexible, they offer a high degree of privacy, secrecy and autonomy, they are readily available to their users and due to familiar medium and technology can be used in virtually any context (24,25). Applications become new vehicles of support and help not just for everyone dealing with mental health issues but help providers as well because they enable instant access to information, the possibility of setting reminders, multiple uses throughout the day as well as opportunity for practice, which leads to great expansion (24,25). Even though nothing can replace personal communication and support, especially for psychotherapy, it seems impossible for everyone in need of help to receive this most adequate form of support. Mobile applications could serve as a support to design a more efficient approach, since in more developed countries the ratio of mobile phones to the number of active experts is 8,000 to one while these numbers reach as high as 30,000 in one in the least developed parts of the world (25). Research into the effectiveness of mobile applications in the area of mental health is still rare, in spite of their high availability. Programmers and development teams sometimes have no interest in research and evaluation of applications and it seems that some of the applications' effects decrease with time. Published studies do not report uniform results (24,25), but in spite of these shortcomings, this is still an area of tremendous potential for the mental health domain.

PRIMJENA MODERNIH TEHNOLOGIJA NA PODRUČJE INTERNALIZIRANIH PROBLEMA

Istraživanja internaliziranih problema ukazuju da njihova pojavnost negativno utječe na kvalitetu mentalnog zdravlja u budućnosti. Ako se jave ranije u životu, rezistentniji su na promjene, tijekom odrastanja nerijetko uz sebe vežu i rizična ponašanja, narušavaju suočavanje s

APPLICATION OF MODERN TECHNOLOGIES IN THE AREA OF INTERNALIZED PROBLEMS

Research into internalized problems suggests their negative influence on the future quality of mental health. When they develop early on, internalized problems are more resistant to change and frequently involve risky behaviour while growing-up, impaired problem solving,

problemima, smanjuju povezanost s drugima, a problematika postaje ozbiljnija s dobi (26-30). Kako bi se primijenile inovativne metode poput strategija društvenog marketinga ili pak kompjuteriziranih programa te primijenjenih igara, potrebno je razumjeti rizične čimbenike za razvoj internaliziranih problema (26-30). Neki od rizičnih čimbenika kao što su genetska predispozicija djeteta, neka obilježja temperamenta, obiteljska povijest te doživljeno traumatsko iskustvo teško su promjenjivi. U fokusu intervencija su dinamički čimbenici rizika koji se mogu mijenjati: primjerice neadekvatan odgoj, loši bračni odnosi, nedostatak socijalnih vještina, razvoj aktivnih strategija nošenja s problemom, razvoj podržavajućih odnosa te spiritualnosti (26-30).

poor relationships, all of which become more serious with age (26-30). In order to apply innovative methods such as social marketing strategies or computerised programmes and applied games, it is necessary to understand risk factors for the development of internalized problems (26-30). Risk factors such as the genetic predisposition of the child, some temperament traits, family history and experiencing a traumatic event are hardly changeable. Interventions focus on those that can be influenced, such as: inadequate upbringing, bad marital relations in the family, lack of social skills, development of active strategies of dealing with problems, development of supportive relationships and spirituality (26-30).

PRIMJERI MEDIJSKIH KAMPANJI USMJERENIH NA INTERNALIZIRANE PROBLEME

Većina kampanji čiji su podatci dostupni na internetu isključivo su se fokusirale na podizanje svjesnosti o internaliziranim problemima djece i odraslih i to najčešće o depresivnosti. Ovim se radom nastoji dati prikaz svjetskih primjera kako bi se osvijetlio jedan od mogućih pristupa problematici i ponudili primjeri dobre prakse koji mogu biti zanimljivi i za domaću primjenu.

Beyondblue je neprofitna organizacija promocije mentalnog zdravlja, osnovana 2000. godine u Australiji kao dio petogodišnje nacionalne inicijative kao odgovor na problem depresije u australskom društvu (www.beyondblue.org.au). Riječ je o nacionalnoj inicijativi čiji je primarni cilj osvještavanje javnosti o problemu depresivnosti i anksioznosti te smanjivanje stigmatizacije informiranjem o simptomima, sustavu podrške i dostupnoj pomoći. Nakon prvih pet godina djelovanja organizacija je u Australiji zauzela središnju ulogu u rješavanju problema depresivnosti i u oblikovanju javnih politika i uvođenju novih programa za probleme depresivnosti, anksioznosti i suicida za sve

EXAMPLES OF MEDIA CAMPAIGNS AIMED AT INTERNALIZED PROBLEMS

Most campaigns for which there is accessible online data were focused exclusively on raising awareness about internalized problems of children and grown-ups, primarily depression. This paper strives to provide global examples in order to shed some light on one of the possible approaches to these issues and present examples of good practice, which might be locally applicable as well.

Beyondblue is a non-profit promoting mental health project, established in Australia in 2000 as part of a five-year long national initiative undertaken in response to depression problem in Australian society (www.beyondblue.org.au). It is an example of a national initiative with the primary aim of raising awareness of depression and anxiety and decreasing stigmatization by informing the public about symptoms, the support system and available help. In the first five years of its operation, this organization assumed the leading role in addressing the problem of depression as well as in drafting public policies and introducing new programmes for

populacije. *Beyondblue* radi u suradnji s zdravstvom, školama, sveučilištima, medijskim organizacijama te u suradnji s osobama koje pate od depresivnosti i anksioznosti te s njihovim prijateljima i obiteljima. Njihova web stranica je iznimno informativan portal koji nudi mnogo poveznica, no prije svega služi kao servis na kojem su dostupne činjenice i informacije kome se obratiti za pomoć, o programima koji postoje, koje su to situacije u kojima se poteškoće mogu javiti pa čak i što reći stručnjaku. Isto tako nudi informacije i za stručnjake i za sustave kako bi se podrška što brže i kvalitetnije osigurala. Iz perspektive ovog rada iznimno je zanimljivo njihovo djelovanje spajanjem socijalnog marketinga, kampanji, prevencije i tretmana: portal sadrži mnogo kampanji koje prenose osobne priče, obraćaju se javnosti da bi ju senzibilizirale i smanjile diskriminaciju te adresiraju teme na vrlo intrigantan i blizak način (31). Primjerice, njihova *Brains can have a mind of their own* je kampanja nastala na temelju istraživanja koje je bilo dio kampanje *Beyondblue* te je pokazalo da dvoje od pet mladih osoba smatra kako njihovi vršnjaci ne bi potražili pomoć ako pate od depresivnih i anksioznih simptoma. Kampanja je usmjerena na mlade u dobi od 13 do 18 godina s naglaskom na one koji prvi put pate od depresivnih i anksioznih simptoma i koji još nisu potražili pomoć. Fokus je stavljen na mlade s obzirom da su istraživanja pokazala kako polovica slučajeva problema mentalnog zdravlja započinje oko 14. godine života. Sama kampanja je humorističnog karaktera gdje u reklamama i promotivnim videima animirani lik mozga kod mladih izaziva razne anksiozne i depresivne simptome, odnosno mozak je predstavljen kao eksterni prikaz depresivnosti i anksioznosti. Svrha ovakvog prikaza depresivnih i anksioznih simptoma i cilj same kampanje je ukloniti osjećaj krivnje zbog proživljavanja tih simptoma, jer on koči mlade osobe u traženju pomoći, odnosno cilj kampanje je potaknuti mlade da potraže pomoć u slučaju takvih iskustava. Humorističan pristup je korišten s

depression, anxiety and suicide problems in all populations. *Beyondblue* cooperates with the healthcare system, schools, universities, media organisations and persons afflicted with depression or anxiety as well as their friends and families. Their website serves as an extremely informative source of many links, but above all as a collection of facts and information on who to contact for help, on available programmes, on situations when difficulties are expected to occur and even on how to speak with experts. At the same time, it provides information for experts and organizations so that high-quality assistance could be administered as quickly as possible. From the perspective of this paper, their activities are very interesting because they connect social marketing, campaigns, prevention and treatment: the website contains many campaigns which report personal stories, address the public opinion in order to sensitize it to these issues and reduce discrimination and tackle these topics in an intriguing and relatable manner (31).

For example, their campaign *Brains can have a mind of their own* based on the research conducted as part of the *Beyondblue* campaign has shown that two out of five young people think their peers might not seek support if they suffered from symptoms of depression and anxiety. The campaign was aimed at 13 to 18 year olds, especially those who experienced depression and anxiety for the first time and who had previously not sought professional help. Young people were the focus of the campaign because research has suggested that half of mental health issues emerge by age 14. The campaign had a humorous tone, with ads and videos featuring an animated brain character that causes young people to experience various symptoms of depression or anxiety. In that way the brain character was made into an external representation of depression and anxiety and the purpose of such portrayal was to eliminate the sense of personal responsibility and shame which can

obzirom da istraživanja tržišta ukazuju kako je upravo takav pristup učinkovit kada se radi o mladima (31).

Dobar primjer korištenja komercijalnog sustava u društveno-marketinške svrhe je *Bell Let's Talk,* inicijativa vodeće kanadske kompanije *Bell* za telekomunikacije, koja se fokusira na promociju mentalnog zdravlja (http://letstalk.bell.ca/en/). Inicijativa je započela 2010. godine kao petogodišnja inicijativa, a 2015. godine joj je trajanje, odnosno financiranje produljeno na narednih pet godina. *Bell Let's talk* ima četiri cilja: destigmatizacija problema mentalnog zdravlja, povećanje dostupnosti usluga i servisa mentalnog zdravlja, promocija mentalnog zdravlja na radnim mjestima te istraživanje tretmana mentalnog zdravlja. U svrhu destigmatizacije *Bell let's Talk* inicijativa pokrenula je kampanju koja je nastojala podići svjesnost o problemima mentalnog zdravlja te je organiziran događaj pod nazivom *Bell Let's Talk Day* kada su se prikupljala financijska sredstva za kanadske programe vezane za mentalno zdravlje (32).

Time to change je program formiran 2007. godine od strane dobrotvornih ustanova *Mind* i *Rethink Mental Illness* koje se bave mentalnim zdravljem*,* a program je sufinanciran od Britanskog zavoda za javno zdravstvo (www.time-to-change.org.uk). Cilj programa je smanjiti stigmu i diskriminaciju kod narušenog mentalnog zdravlja. *It's time to talk* je kampanja koja je dio programa *Time to change* čiji je cilj bio otvaranje teme mentalnog zdravlja, odnosno poticanje razgovora o mentalnom zdravlju. Kampanja se sastojala od reklama, stripova i videa humorističnog karaktera, a provodila se tijekom 2011. i 2012. godine u suradnji s osobama narušenog mentalnog zdravlja. U kampanji se naglašavalo kako je ljudima nelagodno kada se radi o problemima mentalnog zdravlja te da se često boje o tome razgovarati. Reklamama, stripovima i ostalim proizvodima kampanje se na humorističan način prikazuje o čemu razmišljaju osobe kada oklijevaju pitati drugu oso-

prevent young people in asking for help when faced with such experiences. The campaign used a humorous approach since according to the results of marketing research it is the most effective way to engage young people (31).

A good example of the commercial system being used for the purpose of social marketing is *Bell Let's Talk*, an initiative focused on mental health promotion, undertaken by *Bell,* the leading Canadian telecommunications company (http://letstalk.bell.ca/en/). This five-year-long initiative was launched in 2010 and in 2015 its duration and funding were extended by another five years. *Bell Let's Talk* has four goals: reducing stigma around mental health issues, increasing access to mental health care and services, promoting mental health in the workplace and researching mental health treatments. In order to eliminate stigma, *Bell Let's Talk* initiative launched a campaign to increase awareness on mental health issues, and an event, *Bell Let's Talk Day*, was organized to help raise funds for Canadian programmes related to mental health (32).

Time to Change was a programme started in 2007 by the mental health charities *Mind* and *Rethink Mental Illness* and is co-funded by the British Department of Health (www.time-to-change.org.uk). The aim of the program is to eliminate stigma and discrimination. Their campaign *It's time to talk* was aimed at encouraging conversation on mental health. It consisted of adverts, comics and humorous videos and ran through 2011 and 2012, in cooperation with those affected by mental health issues. A lot of emphasis of the campaign was put on embarrassment people face in relation to their mental health problems and fears in talking about them. Ads, comics and other campaign outputs used humour to show what people think when they hesitate to ask someone experiencing a mental health problem how they feel and how their recovery is going. It was shown that nothing necessarily bad or embarrassing actually

bu koja pati od problema mentalnog zdravlja kako se osjeća i kako teče njen oporavak. Na kraju se prikazuje kako se zapravo ništa loše ni neugodno ne događa kada se razgovara o mentalnom zdravlju. Evaluacija je pokazala kako je reklamu kampanje vidjelo 81 % odraslih u Engleskoj te kako je web stranicu poslije prikaza reklama posjetilo 153 000 posjetitelja (33).

Američki je primjer *We Can Help Us*, kampanja čiji je cilj prevencija suicida mladih, a fokusira se na populaciju mladih od 13 do 17 godina koji su u riziku od počinjenja suicida, odnosno na one koji su depresivni i pod stresom (34). Kreatori kampanje su SAMHSA - Administracija za prevenciju ovisnosti i mentalno zdravlje, neprofitna organizacija *Ad Council* te *Inspire* - američka fondacija koja promovira mentalno zdravlje mladih. Kampanja polazi od ideje da svi mladi prolaze kroz slične teške situacije tijekom odrastanja te da ih treba podsjetiti kako postoje pozitivni i konstruktivni načini prevladavanja tih situacija nasuprot suicidu. Proizvodi kampanje su interaktivna web stranica, reklame te posteri koji su postavljeni po školama. Na web stranici prikazane su stvarne priče mladih osoba koje su se borile s teškim trenutcima i koje upućuju na to kako se nositi s problemima kako bi ohrabrile mlade te se nudi mogućnosti povezivanja s vršnjacima. Kampanjom su prikazani znakovi depresije te savjeti kako se nositi s problemima uz informacije i kontakte relevantnih institucija koje mogu pomoći mladima koji se bore s depresijom i razmišljaju o suicidu (34). Prije kreiranja kampanje provedeni su intervjui s mladima, odnosno istraživala se pozadina problema i perspektiva mladih o problemu. Na temelju intervjua s mladima došlo se do zaključaka kako je mladima s odraslima teško razgovarati o problemima. Blisko im je čuti priče vršnjaka o tome kako su se oni uspjeli nositi s problemima, skloni su anonimnom povezivanju s vršnjacima preko interneta te su naveli kako žele učiti o adekvatnim načinima nošenja s problemima i čuti autentične priče i poruke. Ključna poruka kampanje je kako je olakšanje bliže nego što se

happens when engaging in that conversation. Evaluation of the campaign has shown that the advert was seen by 81 percent of grownups in England and that the website received 153,000 hits after the ads were aired (33).

An American example is the *We Can Help Us* campaign aimed at suicide prevention in the population of youth aged 13 to 17 who are at risk of committing suicide, i.e. those who are depressed and stressed-out (34). The campaign was created by SAMHSA – Substance Abuse and Mental Health Services Administration, the non-profit organisation *Ad Council* and *Inspire* – an American foundation promoting mental health of young people. The campaign goals stem from the notion that all young people go through similar difficulties during the process of growing up and that they should be reminded of positive and constructive ways of overcoming these difficulties instead of resorting to suicide. The outputs of the campaign were an interactive website, adverts and posters that were put up in schools. The website features real-life stories of teens who have experienced difficult moments. It suggests some encouraging approaches to handling problems and provides possibilities of connecting with peers. The campaign informed the public of the signs of depression and offered advice on how to deal with problems along with contacts and information on relevant institutions that could help teens struggling with depression and considering suicide (34). Prior to creating the campaign, teens were interviewed in an attempt to research the background of the problem and the youth's perspective on it. On the basis of these interviews, it was concluded that young people have trouble discussing their problems with adults. They can relate to their peers' stories on how they have managed to handle their problems, they tend to connect with them anonymously over the internet and have stated their interest in learning about adequate ways of dealing with their issues as well as hearing authentic stories and messages. The

čini, a ton samog naziva kampanje koji je utjelovio tu poruku je pozitivan. Naziv kampanje također upućuje na to kako mladi imaju kontrolu nad svojim životom i kako mogu prevladati probleme uz pomoć priča uspjeha vršnjaka (35).

PRIMJERI *ON-LINE* PROGRAMA USMJERENIH NA INTERNALIZIRANE PROBLEME

U tekstu koji slijedi izabrano je nekoliko uspješnih i znanstveno-dokazanih primjera programa čija je svrha ili prevencija ili tretman. Sva tri programa dijele slične principe: temelje se na potrebama djece i mladih, prilagođeni su ciljanoj populaciji te je korišten internet kao komunikacijski kanal prema djeci i mladima. Sva tri predstavljena programa dijele teorijsku podlogu kognitivno-bihevioralne terapije u poticanju promjena ciljane populacije, tj. znanstveno su i empirijski temeljeni.

MoodGYM je besplatan *on-line* program podrijetlom iz Australije kreiran od Centra za istraživanje mentalnog zdravlja (*National Institute for Mental Health Research, The Australian National University)* te je namijenjen mladima u dobi od 18 do 25 godina i odraslima u dobi od 26 do 55 godina u cilju prevencije i tretmana od blagih do umjerenih simptoma depresije i anksioznosti (www.moodgym.anu.edu.au). Program se sastoji od pet modula u trajanju 20-40 minuta, interaktivne igre, procjene anksioznosti i depresivnosti, relaksirajućeg audio materijala koji se može besplatno skinuti, *on-line* radne bilježnice gdje se bilježi napredak te od povratne informacije. Temelji se na principima kognitivno-bihevioralne terapije kao što su kognitivno restrukturiranje, povezanosti misli i osjećaja, bihevioralnih aktivnosti, tehnikama relaksacije i rješavanja problema te na principima interpersonalne terapije (36). Moduli su kreirani kako bi se prolazili u razdoblju od 6 tjedana i nose sljedeće nazive koji ujedno opisuju njihove teme i ciljeve: (1) Osjećaji

main message of the campaign, expressed in its name, is that support is closer than it seems. The name of the campaign also points to the idea that young people have control over their lives and can overcome their problems with the help of success stories from their peers (35).

EXAMPLES OF ONLINE PROGRAMMES AIMED AT INTERNALIZED PROBLEMS

Several successful and scientifically proven examples of programmes intended for prevention or treatment are presented below. All three of the presented programmes share similar principles: they are based on the needs of children and teens, tailored to the target population and use internet as a communication tool to reach children and teens. All three programmes share theoretical assumptions of cognitive-behavioural therapy in their approach to inducing change in target population, i.e. they are scientifically and empirically established.

MoodGYM is a free online program designed in Australia by the National Institute for Mental Health Research of The Australian National University, aimed at prevention and treatment of mild to moderate depression and anxiety symptoms in the youth population aged 18-25 and adults aged 26-55 (www.moodgym.anu. edu.au). This programme consists of five 20- to 40- minute interactive games, anxiety and depression assessments, a downloadable relaxation audio file, an online workbook to track progress and feedback assessment. It is based on the principles of cognitive-behavioural therapy such as cognitive restructuring, the relationship between thoughts and emotions, behavioural activation, relaxation techniques and problem solving as well as principles of interpersonal therapy (36). The modules have been designed to be completed over 6-week periods and have the following names which illustrate their topics and goals: (1) Feelings module –

- zašto se tako osjećaš, (2) Misli - mijenjanje načina razmišljanja, (3) Ispravljanje distorzija - mijenjanje iskrivljenih misli, (4) Smanjenje stresa-razumijevanje onog što te uzrujava, (5) Odnosi s drugima-kako funkcioniraju. Nakon svakog modula korisnici ispunjavaju upitnik koji mjeri stupanj depresivnosti i anksioznosti, dobivaju povratnu informaciju o sebi, formiraju ciljeve te se na početku svakog modula kratko ponavljaju ključne informacije iz prošlog (12). U program nisu uključeni djelatnici iz domene mentalnog zdravlja, iako program može biti dio stručnog tretmana. Za razliku od sličnih programa, *MoodGYM* daje prikaz životnih situacija koje su relevantne za mlade osobe te životopisnih ilustrativnih likova koji pomažu u usvajanju potrebnih vještina. Za vrijeme trajanja programa korisnike se potiče na prakticiranje naučenog u svakodnevnom životu (13). Evaluacija programa pokazala je kako *MoodGYM* doprinosi smanjenu depresivnih simptoma i disfunkcionalog razmišljanja kod odraslih i smanjenju anksioznih i depresivnih simptoma kod adolescenata (12).

Camp Cope-A-Lot: The Coping Cat dio je *Coping Cat* (www.cope-a-lot.com) programa za djecu od 7. do 13. godina s anksioznim simptomima, osmišljen od Philipa C. Kendalla i Muniye Khanne (37). Ciljevi su trojaki: naučiti djecu i mlade prepoznati anksiozne simptome i nositi se s njima, smanjiti razinu anksioznosti te pomoći djeci ovladati razvojno prikladnim, izazovnim zadaćama (38). Aktivnosti su temeljene na principima kognitivno-bihevioralne terapije te pomažu djeci prepoznati stanje anksioznosti i razviti strategije nošenja sa situacijama koje mogu izazvati takvo stanje. Program se fokusira na četiri povezane komponente: prepoznavanje tjeskobe i fizičkih reakcija na anksioznost, razjašnjavanje osjećaja u situacijama koje mogu izazvati anksioznost, razvijanje plana nošenja s takvim situacijama, evaluaciji učinka i programu samopotkrepljenja (39). *Camp Cope-A-Lot: The Coping Cat* namijenjen je djeci od 7 do 13 godina gdje je dijete uključeno u 6 individu-

why you feel the way you do, (2) Thoughts module – changing the way you think, (3) Unwarping module – changing dysfunctional thoughts, (4) De-stressing module – understanding what stresses you, (5) Relationship module – how relationships function. At the end of each module, users are asked to complete self-assessment instruments rating mood and anxiety, get feedback on their progress and are asked to set goals. The beginning of each module includes a short revision of key information from the previous module (12). Mental health experts are not included in this programme, although it can be used as part of expert treatment. Unlike similar programmes, *MoodGYM* introduces real-life situations relevant to young people using vivid illustrative characters helping users to acquire necessary skills. Throughout the duration of the programme, users are encouraged to apply what they learned in their everyday life (13). Programme evaluations tend to show that *MoodGYM* contributes to the alleviation of the symptoms of depression and dysfunctional thinking in adults and alleviation of anxiety and depression symptoms in adolescents (12).

Camp Cope-A-Lot: The Coping Cat is a part of the *Coping Cat* programme (www.cope-a-lot.com) designed for 7-13 year olds with anxiety symptoms, by Philip C. Kendall and Muniya Khanna (37). The goals of the programme are threefold: to teach children and adolescents how to recognize symptoms of anxiety and cope with them, how to reduce anxiety levels and how to help children approach developmentally appropriate, challenging tasks (38). Activities based on cognitive-behavioural therapy principles help children address their anxiety and develop coping strategies for anxiety-inducing situations. The programme is focused on four interrelated components: recognizing anxiety and physical reactions to anxiety, clarifying feelings in anxious situations, developing coping plans for such situations, evaluating performance and giving self-reinforcement (39). *Camp Cope-A-Lot: The Coping Cat* is intended for

alnih seansi kompjuterskog programa i još 6 susreta s terapeutom gdje ostatak programa prolaze zajedno u razdoblju od 12 tjedana, jer je cilj kombinirati prednosti osobnog pristupa s kompjuterskom tehnologijom (38). Terapeut pomaže djetetu da koristi naučeno u stvarnom životu na način da dijete izvršava razne zadatke u stvarnim situacijama uz prethodni dogovor s terapeutom koristeći naučeno (37). Kompjuterski program je zamišljen kao *on-line* kamp gdje animirana mačka *Charley* u simuliranim situacijama uči djecu kako se nositi sa situacijama koje pobuđuju anksioznost. Program se sastoji od 12 modula u trajanju od 35 minuta i od neobaveznih nagrađujućih video igrica. Ovaj program nije besplatan već ga je potrebno kupiti zajedno s pripadajućim priručnikom za terapeuta i ostalim materijalima (40). U istraživanju učinkovitosti programa uključili su tri skupine djece s generalnim anksioznim poremećajem; jedna je skupina prolazila *Camp Cope-A-Lot: The Coping Cat,* druga je bila u individualnoj kognitivno-bihevioralnoj terapiji, a treća je bila uključena u edukaciju i podršku uz pomoć računala. Rezultati su pokazali kako su prve dvije skupine djece postigle značajno veći napredak od one uključene u kompjutersku edukaciju i kako te dvije skupine nakon završetka više nisu zadovoljavale kriterije za generalizirani anksiozni poremećaj. U praćenju poslije programa, napredak se održao kod prve dvije skupine ispitanika, bez razlika (37).

Sparx je *on-line* preventivni program namijenjen za djecu i mlade od 12 do 19 godina s blagim do umjerenim depresivnim simptomima, a financiran je od strane vlade Novog Zelanda i besplatan je za njegove građane (www.sparx.org.nz). Autori programa su istraživači i kliničari sa Sveučilišta u Aucklandu, predvođeni Sally Merry te Karolinom Stasiak (41). Program izgleda kao 3D videoigrica gdje korisnik bira svoj lik, tj. alias koji spašava svijet od negativnosti i sumornosti. Igrom korisnik stječe vještine koje su mu potrebne kako bi postigao cilj igre, a radi se o vještinama temeljenim na prin-

7-13 year olds and involves 6 individual computer-assisted sessions as well as 6 live sessions with a therapist during a 12-week period, over which the advantages of personal approach are combined with computer technology (38). The therapist assists the child in applying learned strategies in real life through exposure tasks and problem solving in realistic situations (37). The computer programme has been designed as an online camp where Charley, the animated cat, teaches children how to cope with anxiety in simulated situations. The programme consists of twelve 35-minute modules and optional reward-based video games. It is not free of charge but sold with accompanying therapists' manual and other materials (40). Three groups of children with generalized anxiety disorder were included in the study of the efficacy of this programme; the first group took part in the *Camp Cope-A-Lot: The Coping Cat*, the second one underwent individual cognitive behavioural therapy sessions and the third group was involved in computer-facilitated education and support. The results have shown significantly more pronounced progress in the first two groups of children than in the group taking part in computerized education and support. These two groups no longer satisfied the diagnostic criteria for the generalized anxiety disorder, and their progress persisted throughout the follow-up after the programme (37).

Sparx is a preventative online programme intended for children and adolescents aged 12-19 with mild to moderate depression symptoms, funded by the New Zealand government and free for all New Zealand residents (www.sparx.org.nz). It has been created by researchers and clinical practitioners from the University of Auckland lead by Sally Merry and Karolina Stasiak (41). This programme is designed as a 3D videogame in which users pick their characters or aliases who save the world from negativity and gloom. By playing the game, the player acquires skills necessary to reach the goal, and these are the skills based on the principles of

cipima kognitivno-bihevioralne terapije koje su potrebne za prevladavanje stresa i upravljanje raspoloženjem u stvarnom životu. Program mlade podučava o pet elemenata koje su važni u smanjenju depresivnih simptoma: rješavanje problema, uključenost u aktivnosti, kultivacija pozitivnih misli, socijalne vještine i relaksacija. Rezultati evaluacije su pokazali da je Sparx jednako učinkovit kao individualni kognitivno-bihevioralni tretman za djecu od 12 do 19 godina koja pate od depresivnih simptoma, ali i za one s anksioznim simptomima (42).

ZAKLJUČNA RAZMATRANJA

Svjetski podatci jasno ukazuju na činjenicu da je depresija jedan od vodećih uzroka dizabiliteta, pa su prevencija i rani tretman prvih simptoma gorući zdravstveni prioritet. Ministarska konferencija o zdravlju koja se održala u Helsinkiju 2015. godine ističe da u odgovoru na ekonomsku krizu društvo treba učinkovitu promociju mentalnog zdravlja i prevenciju mentalnih poremećaja utjecajem na strukturne probleme (43). Kako bi se utjecalo na smanjenje internaliziranih problema na javnozdravstvenoj razini, inovativne mogućnosti pruža korištenje elemenata društvenog marketinga i medija te ponuda znanstveno-utemeljenih intervencija putem modernih tehnologija. Najviše dokaza o učinkovitosti inovativnih pristupa internaliziranim problemima dolazi od istraživanja odraslih korisnika (44,45). Robusna istraživanja internet intervencija pružaju čvrste dokaze da su on-line intervencije za depresivne i anksiozne simptome odraslih učinkovite te je veličina njihovog učinka d=0,88 (44). Istraživanja populacije djece i adolescenata manje su prisutna i te studije datiraju od 2009. nadalje no također su pokazale učinke od d=0,70 (22,23). Buntrock i suradnici ističu da iako studije govore o srednjim veličinama efekata navedeno ima veliki učinak za zemlje gdje nema nikakvih intervencija (45).

cognitive behavioural therapy needed to overcome stress and regulate mood in everyday life. This program teaches young people five elements important in order to diminish symptoms of depression: problem solving, engaging in activities, cultivating positive thinking, social skills and relaxation. Evaluation results have shown Sparx to be equally effective as individual cognitive-behavioural treatment for kids aged 12-19 who are suffering from symptoms of depression as well as for those battling with anxiety symptoms (42).

CONCLUDING REMARKS

According to global/world-wide data, depression is clearly one of the leading causes of disability, which is why prevention and early treatment of initial symptoms should be considered as an urgent healthcare priority. The ministerial conference on health held in Helsinki in 2015 stressed the need to address structural problems in order to achieve effective mental health promotion and mental disorders prevention in the conditions of economic crisis (43). In order to further the decline of internalized problems on the level of public health, the use of social marketing elements and media as well as scientifically proven interventions of modern technology could offer some innovative opportunities. Most evidence on the efficacy of an innovative approach to internalized problems stems from research of adult users (44,45). Robust research into internet interventions provides solid evidence supporting the efficacy of online interventions for depression and anxiety symptoms in adults, where the effect size was d=0.88 (44). There is less research into children and the adolescent population, and these studies date from 2009 onwards but they have also shown effect sizes of d=0.70 (22,23). Buntrock et al. point out that although studies demonstrate medium-scale effects these make a big difference in countries where no other interventions are present (45).

Dokazi ukazuju da korištenje medija i modernih tehnologija vrlo lako senzibilizira javnost, povećava informiranost i nudi jednostavno primjenjiv set aktivnosti koje poboljšavaju kvalitetu života ciljne populacije bez obzira na postojeći sustav. Jednom napravljen *on-line* program ili pak jednostavna web stranica dostupna je širokoj populaciji te su ulaganja puno manja nego kod intervencija licem u lice. Bez obzira na prigovore da tehnologija nikako ne može zamijeniti osobni kontakt, ako se želi mijenjati politiku za mentalno zdravlje i utjecati na kvalitetu života svih građana, javnosti apsolutno moraju biti dostupne informacije i neka prva, trijažna razina intervencija.

Ovim se radom nastoji motivirati domaću stručnu i znanstvenu javnost da odgovornije promišlja mogućnosti tehnologija i uči na primjerima dobre prakse iz svjetskih kampanji, intervencija i programa namijenjenih adresiranju internaliziranih problema i promociji mentalnog zdravlja.

Evidence suggests that using media and modern technologies can easily influence the public's attention to the problem, increase awareness and understanding and offer a set of easily applicable activities which can improve quality of life of the target population regardless of the current system. Once they are designed an online programme or a simple webpage, they become accessible to a wide audience and require much less investment than face-to-face interventions. If mental health policies are to be challenged and the quality of life of all citizens increased, then the public absolutely must have information and at least some triage level interventions, despite complaints that technology can by no means substitute for personal contact.

This paper strives to motivate the local expert and scientific community to reflect on the potential of technology and to learn from good practical examples of global campaigns, interventions and programmes intended for addressing internalized problems and mental health promotion.

LITERATURA/REFERENCES

1. Mandryk RL, Birk MV, van Rooij M, Granic I. Games for the assessment and treatment of mental health. In CHI PLAY'17 Extended Abstracts: Extended Abstracts Publication of the Annual Symposium on Computer-Human Interaction in Play 2017 (673-678).

2. Ott BL, Mack RL. Critical media studies: An introduction. John Wiley & Sons, 2010.

3. Gillan CM, Daw ND. Taking Psychiatry Research Online. Neuron 2016; 91(1): 19-23. PMID: 27387647.

4. Wittchen HU, Jacobi F, Rehm J, Gustavsson A, Svcensson M, Jönsson B *et al*. The size and burden of mental disorders and other disorders of the brain in Europe 2010. Eur Neuropsychopharmacol 2011; 21(9): 655-79.

5. Mental health atlas. World Health Organization. Dept. of Mental Health, and Substance Abuse, 2014.

6. Chisholm D, Sweeny K, Sheehan P *et al*. Scaling-up treatment of depression and anxiety: a global return on investment analysis. Lancet Psychiatry 2016; 3(5): 415-24.

7. Cuijpers P, Riper H, Andersson G. Internet-based treatment of depression. Current Opinion in Psychology 2015; 31;4:131-5.

8. Mandryk RL, Birk MV. Toward Game-Based Digital Mental Health Interventions: Player Habits and Preferences. J Med Internet Res 2017; 19(4): e128.

9. Riper H, Andersson G, Christensen H, Cuijpers P, Lange A, Eysenbach G. Theme issue on e-mental health – A growing field in Internet research. J Med Internet Res 2010; 12(5): 74, e74.

10. Novak M, Petek A. Mentalno zdravlje kao politički problem. Ljetopis socijalnog rada 2015; 22(2):191-221.

11. Muñoz RF. Using Evidence-Based Internet Interventions to Reduce Health Disparities Worldwide. Journal of Medical Internet Research 2010; 12(5): e60.

12. Eells TD, Wright JH, Barrett MS, Thase M. Computer-assisted cognitive–behavior therapy for depression. Psychotherapy 2014; 51(2): 191–197.

13. Sethi S. Treating youth depression and anxiety: a randomised controlled trial examining the efficacy of computerised versus face-to-face cognitive behaviour therapy. Australian Psychologist 2012; 48(4), 249-257.

14. Spek V, Cuijpers PIM., Nyklícek I, Riper H., Keyzer J, Pop V. Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: a meta-analysis. Psychological medicine 2007; 37(03): 319-328.

15. Van Straten A, Cuijpers P, Smits N. Effectiveness of a Web-Based Self-Help Intervention for Symptoms of Depression, Anxiety, and Stress: Randomized Controlled Trial. Journal of Media Internet Research 2008; 10(1):e7.

16. Morris ME, Kathawala Q, Leen TK, Gorenstein EE, Guilak F, DeLeeuw W, Labhard M. Mobile Therapy: Case Study Evaluations of a Cell Phone Application for Emotional Self-Awareness. Journal of Medical Internet Research 2010;12(2):e10.

17. Kotler P, Lee NR. Social marketing- Influencing behaviors for good. Los Angeles: Sage publications, 2008.

18. Andreasen AR. Social marketing in the 21st century. Thousand Oaks: Sage publications, 2006.

19. Academy for educational development. Social marketing: a practical resource for social change professionals, Washington: AED, 2008.

20. Social marketing national excellence collaborative. The basics of social marketing: how to use marketing to change behavior. Seattle: Turning Point, 2007.

21. Wallack L. Social Marketing As Prevention: Uncovering Some Critical Assumptions. Advances in Consumer Research 1984; 11: 682-687.

22. Fleming TM, Bavin L, Stasiak K , Hermansson Webb E, Merry SN, Cheek C et al. Serious games and gamification for mental health: current status and promising directions. Frontiers in Psychiatry 2017; 10 (7): 215.

23. Lau HM, Smit JH, Fleming TM, Riper H. Serious games for mental health: are they accessible, feasible, and effective? A systematic review and meta-analysis. Frontiers in Psychiatry 2017; 18 (7): 209.

24. Donker T, Petrie K, Proudfoot J, Clarke J, Birch M-R, Christensen H. Smartphones for Smarter Delivery of Mental Health Programs: A Systematic Review. J Med Internet Res 2013; 15(11): e247.

25. Jones SP, Patel V, Saxena S, Radcliffe N, Ali Al-Marri S, Darzi A. How Google's 'ten things we know to be true'could guide the development of mental health mobile apps. Health Affairs 2014; 33(9): 1603-11.

26. Brock RL, Lawrence E. Marital processes, neuroticism, and stress as risk factors for internalizing symptoms. Couple Family Psychol 2014; 3(1): 30-47.

27. Marakovitz SE, Wagmiller RL, Mian ND, Briggs-Gowan MJ, Carter AS. Lost toy? Monsters under the bed? Contributions of temperament and family factors to early internalizing problems in boys and girls. J Clin Child Adolesc Psychol 2011; 40(2): 233-44.

28. Cummings, EM, Cheung RYM, Davies PT. Prospective relations between parental depression, negative expressiveness, emotional insecurity, and children's internalizing symptoms. Child Psychiatry Human Development 2013; 44(6): 698-708.

29. Melchior M, Touchette E, Prokofyeva E, Chollet A, Fombonne E, Elidemir G et al. Negative childhood events predict trajectories of internalising symptoms up to young adulthood: an 18- year old longitudinal study. PLoS ONE 2014; 9(12): 1-13.

30. Yeung Thompson RS, Leadbeater BJ. Peer victimization and internalizing symptoms from adolescence into young adulthood: building strength through emotional support. J Res Adolesc 2012; 23(2): 290-303.

31. Beyondblue . About us, 2015. Dostupno na: https://www.beyondblue.org.au/

32. Bell Let's Talk. Our initiatives, 2015. Dostupno na: http://letstalk.bell.ca/en/our-initiatives/pillars/anti-stigma/

33. Time to change. About us, 2015. Dostupno na: http://www.time-to-change.org.uk/about-us

34. SAVE- Suicide Awareness voices of education. SAMHSA launches new suicide prevention campaign for teens, 2015. Dostupno na: http://www.save.org/index.cfm?fuseaction=home.viewPage&page_id=B6279AD5-D353-3C07-821274480AE-C261D

35. Ayers N, Della Torre T, Keys S. Extending "We can help us" teen suicide prevention campaign into your community, 2010. Dostupno na: http://www.slideshare.net/SPRCST/we-can-help-us-webinar-slideshare-version-4659527

36. SAMHSA's National registry of evidence-based programs and practices. MoodGYM, 2015. Dostupno na: http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=319

37. Khanna MS, Kendall PC. Computer-assisted cognitive behavioral therapy for child anxiety: results of a randomized clinical trial. J Consult Clin Psychol 2010; 78(5): 737-45.

38. Sociometrics. Coping cat: cognitive-behavioral therapy for anxious children, 2015. Dostupno na: http://www.socio.com/ced06.php

39. Promising practices networks. Coping cat, 2015. Dostupno na: http://www.promisingpractices.net/program.asp?programid=153

40. Observer. A stay at Camp Cope-a-lot for anxious kids, 2015. Dostupno na: http://www.psychologicalscience.org/index.php/publications/observer/2014/september-14/a-stay-at-camp-cope-a-lot-for-anxious-kids.html

41. Merry SN, Stasiak K, Shepherd M, Frampton C, Fleming T, Lucassen MFG et al. The effectiveness of SPARX, a computerised self help intervention for adolescents seeking help for depression: randomised controlled non-inferiority trial. BMJ 2012; 344: e2598.

42. Beehive- the official website of New Zealand goverment. SPARX, 2015. Dostupno na: http://www.beehive.govt.nz/sites/all/files/SPARX_one-pager.pdf>.

43. Join Action: Mental health and wellbeing. Publications, 2015. Dostupno na: http://www.mentalhealthandwellbeing.eu/publications

44. Andersson G, Cuijpers P. Pros and cons of online cognitive–behavioural therapy. Br J Psychiatry 2008; 193(4): 270-1.

45. Buntrock C, Ebert DD, Lehr D, Smit F, Riper H, Berking M, Cuijpers P et al. Effect of a web-based guided self-help intervention for prevention of major depression in adults with subthreshold depression: a randomized clinical trial. JAMA 2016; 315(17): 1854-63.