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Periodinio recenzuojamo mokslo darbų leidinio „*Socialinės gerovės tyrimai*“ tikslas – skatinti dialogą tarp įvairių socialinių mokslų krypčių mokslininkų (socialinės politikos, socialinio darbo, sociologijos, edukologijos, psichologijos, ir kt.) bei plėtoti Lietuvos, Rytų ir Vidurio Europos regiono šalių, Europos Sąjungos valstybių socialinės raidos bei jų gyventojų socialinių problemų tarpdisciplininius tyrimus.

Leidinyje „*Socialinės gerovės tyrimai*“ skelbiami originalūs moksliniai straipsniai ir mokslinių monografijų, kitų leidinių recenzijos, tezės, kitos informacinio pobūdžio publikacijos, parašytos lietuvių arba anglų kalbomis. Redaktorių kolegijos nutarimu minėtos publikacijos gali būti leidžiamos ir kitomis kalbomis. Mokslo darbų leidinyje „*Socialinės gerovės tyrimai*“ spausdinami moksliniai straipsniai socialinės politikos, socialinio darbo, sociologijos, edukologijos ir psichologijos tematika.

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The periodical peer-reviewed journal *"Social Inquiry into Well-Being"* aims to promote dialogue between researchers from different branches of social science (social policy, social work, sociology, education, psychology, etc.) and to present interdisciplinary studies on social development and population problems in Lithuania, the EU, Eastern and Central European.

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The journal is published twice a year (in May and November).

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VAIKŲ, SERGANČIŲ CUKRINIU DIABETU, SVEIKATOS KOMPETENCIJOS UGDYMAS(IS) ĮVAIRIOJE APLINKOJE

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Anotacija

Cukrinis diabetas – tai liga, kai organizme sutrinka procesai, palaikantys normalią gliukozės koncentraciją kraujyje. Cukrinis diabetas tampa pirmaujančia liga vaikų endokrinologijoje, sukeliančia sveikatos sutrikimus ir komplikacijas, dėl kurių gali sutrumpėti gyvenimo trukmė. Vaikui nustačius cukrinio diabeto diagnozę, vaikų ir tėvų ugdymas(is) turi prasidėti iš karto, kadangi jiems reikia įgyti sveikatos kompetenciją, padedančią valdyti ligą ir

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susigyventi su ja, o tai pirmiausia įvyksta gydymo įstaigų aplinkoje. Vaikams ir jų tėvams, siekiantiems valdyti ligą, yra reikalinga informacija, įgūdžiai ir vertybinės nuostatos, kurių galima įgyti įvairioje ugdymo(si) aplinkoje. Vaikai ir jų tėvai, įgydami sveikatos kompetenciją, gali pagerinti sveikatos būklę ir išvengti įvairių komplikacijų. Tyrimo objektas – vaikų, kurie serga cukriniu diabetu, sveikatos kompetencijos ugdymas(is) įvairioje aplinkoje. Straipsnio tikslas – atskleisti vaikų, kurie serga cukriniu diabetu, sveikatos kompetencijos ugdymą(si) įvairioje aplinkoje. Uždaviniai: 1) identifikuoti vaikų sveikatos kompetencijos ugdymo(si) aplinką; 2) atskleisti, kaip ir kokioje aplinkoje cukriniu diabetu sergantys vaikai ugdosi sveikatos kompetencijas.

Tyrimo klausimai: 1. Kokia yra reali vaikų, sergančių cukriniu diabetu, sveikatos kompetencijos ugdymo(si) aplinka? 2. Kokius sveikatos kompetencijos aspektus cukriniu diabetu sergantys vaikai ugdo(si) skirtingoje aplinkoje? 3. Kokia ugdymo(si) aplinka yra priimtiniausia vaikams ir kodėl? Tyrimo metodai: teoriniai: mokslinės literatūros analizė, apibendrinimas ir sisteminimas; empiriniai: duomenys rinkti pusiau struktūruotu interviu metodu; tyrimo duomenų analizei taikytas turinio (content) analizės metodas. Siekiant prisotinimo principo kokybiniame tyrime atlikti 7 interviu su vaikais (4 mergaitės ir 3 berniukai), sergančiais cukriniu diabetu. Tyrime išskirtos šešios vaikų sveikatos kompetencijos ugdymo(si) aplinkos: gydymo įstaigų aplinka, šeimos, vasaros stovyklų / sanatorijų aplinka, savivaldaus mokymosi aplinka, socialinių medijų ir likimo draugų aplinkos. Empiriniu tyrimu atskleista, kad vaikams yra svarbu, jog ugdymo(si) aplinka būtų saugi ir jauki, leistų jiems atsiskleisti, būti savimi ir reikšti savo mintis, ugdytis per patirtį. Sveikatos kompetencijos ugdymo(si) aplinkos organizatoriai turėtų motyvuoti vaikus ir įtraukti į šį procesą kuo įvairesnės įdomios veiklos ir kūrybiškų metodų.

Reikšminiai žodžiai: *cukrinis diabetas; sveikatos kompetencija; ugdymo(si) aplinka; vaikai.*

Įvadas

Cukrinis diabetas – tai liga, kai organizme sutrinka procesai, palaikantys normalią gliukozės koncentraciją kraujyje. Sergant cukriniu diabetu gliukozės kiekis kraujyje padidėja, nukenčia visa organizmo medžiagų apykaita (Sherif et al., 2020; Devi et al., 2020). Lietuvoje vaikų sergamumo I tipo cukriniu diabetu atvejai registruojami nuo 1983 m. 2019 m. įskaitoje – daugiau kaip 995 vaikai ir jaunuoliai (iki 19 metų). Per metus šalyje vidutiniškai suserga daugiau nei 80 vaikų (Higienos institutas, 2020). Tiek berniukams, tiek mergaitėms pavojus susirgti vienodas. Dažniausiai cukrinio diabeto liga diagnozuojama 5–7 metų vaikams ir 10–14 metų paaugliams. Cukrinis diabetas tampa pirmaujančia liga vaikų endokrinologijoje, sukeliančia sveikatos sutrikimų ir komplikacijų, dėl kurių gali sutrumpėti gyvenimo trukmė (Gapparova ir Utamarodova, 2023). Vaikams, kurie suserga cukriniu diabetu, pablogėja gyvenimo kokybė, nukenčia mokslai, tenka keisti gyvenimo būdą, todėl tai tampa svarbia socialine ir ekonomine šiuolaikinės visuomenės problema (Gapparova ir

Utamarodova, 2023). Be to, vaikams, sergantiems cukriniu diabetu, kasdien reikia insulino injekcijų, kad gliukozės kiekis būtų kuo didesnis, nes be insulino injekcijų vaikas negalėtų išgyventi (International Diabetes Federation Atlas, 2021). Cukrinis diabetas tampa visos šeimos iššūkiu, kadangi pasikeičia šeimos gyvenimo ritmas, atsiranda papildomos pareigos išlaikyti kuo stabilesnę vaiko sveikatą (International Diabetes Federation Atlas, 2021). Vaikui nustačius cukrinio diabeto diagnozę, vaikų ir tėvų ugdymas(is) turi prasidėti iš karto, kadangi jiems reikia įgyti sveikatos kompetenciją, padedančią valdyti ligą ir susigyventi su ja (Ergun-Longmire et al., 2021). Sveikatos kompetencija cukriniu diabetu sergantiems vaikams yra svarbi ne tik dėl bendrų žinių apie sveikatą įgijimo ir mokėjimo rūpintis savo sveikata, bet ir dėl galimybės įgyti žinių, įgūdžių ir vertybinių nuostatų, kurios padeda išmokti gerai valdyti ligą ir stebėti savo sveikatos būklę bei laiku reaguoti į pokyčius (Schulten, Piet, Bruijning ir Waal, 2016). Cukriniu diabetu sergančių vaikų sveikatos kompetencijos ugdymas(is) yra svarbus žingsnis į tinkamą ligos kontrolę (Shulten et al., 2016). Autoriai (Illy, 2019; Pembroke et al., 2021) pabrėžia, kad pacientų, kurie serga lėtinėmis ligomis, ir jų artimųjų ugdymas(is) neatsiejamas nuo informacijos pateikimo paprastai ir visiems suprantamai, taip pat pasitelkiant įdomius ugdymo metodus. Vaikams ir jų tėvams, siekiantiems valdyti ligą, yra reikalinga informacija, įgūdžiai ir vertybinės nuostatos, kurių galima įgyti įvairioje ugdymo(si) aplinkoje. Užsienyje ir Lietuvoje atlikti moksliniai tyrimai yra nukreipti į cukriniu diabetu sergančių pacientų gydymą, ligos valdymą, psichologines tėvų, sužinojusių apie vaiko ligą, problemas. Tačiau ši tema mažai nagrinėta iš edukologinės perspektyvos: stokojama tyrimų, kuriuose analizuojama vaikų, sergančių cukriniu diabetu, sveikatos kompetencijos ugdymosi aplinka ir jos įvairovė.

Mokslininkai pažymi, kad nuo ugdymo(si) aplinkos priklauso ir vaikų, sergančių cukriniu diabetu, įsitraukimas į sveikatos kompetencijos ugdymosi procesą, taip pat žinių ir įgūdžių įgijimas (Žilinskienė et al., 2021). Ugdymo(si) aplinkos formuotojai, teikdami ugdymo funkcijas, perteikia sveikatos kompetencijos žinias, moko, konsultuoja ir demonstruoja reikiamus įgūdžius ir formuoja vertybines nuostatas, kurios padeda vaikams ir jų tėvams geriau kontroliuoti ligą, o tai yra antrinės prevencijos tikslas. Taigi sveikatos kompetencijos ugdymo(si) aplinkos įvairovė padeda tėvams ir jų vaikams kuo daugiau sužinoti apie lėtinę ligą ir įgyti įgūdžių, padedančių tinkamai suvaldyti ligos pasekmes. Tačiau ne visa sveikatos kompetencijos ugdymo(si) aplinka skatina ugdytis sveikatos kompetenciją. Taigi šiuo straipsniu siekiama atskleisti vaikų, kurie serga cukriniu diabetu, sveikatos kompetencijos ugdymąsi įvairioje aplinkoje.

Tyrimo objektas – vaikų, kurie serga cukriniu diabetu, sveikatos kompetencijos ugdymas(is) įvairioje aplinkoje.

Straipsnio tikslas – atskleisti, vaikų, kurie serga cukriniu diabetu, sveikatos kompetencijos ugdymą(si) įvairioje aplinkoje.

Uždaviniai:

1) identifikuoti vaikų sveikatos kompetencijos ugdymo(si) aplinkas;
2) atskleisti, kaip ir kokioje aplinkoje cukriniu diabetu sergantys vaikai ugdosi sveikatos kompetencijas.

Tyrimo klausimai:

1. Kokia yra reali vaikų, sergančių cukriniu diabetu, sveikatos kompetencijos ugdymo(si) aplinka?
2. Kokius sveikatos kompetencijos aspektus cukriniu diabetu sergantys vaikai ugdo(si) skirtingoje aplinkoje?
3. Kokia ugdymo(si) aplinka yra priimtiniausia vaikams ir kodėl?

1. Tyrimo metodika ir tiriamieji

Tyrimo metodai. Teoriniai: mokslinės literatūros analizė, apibendrinimas ir sisteminimas. Empiriniai: duomenys rinkti pusiau struktūruotu interviu. Tyrimo duomenų analizei taikytas turinio (*content*) analizės metodas.

Tyrimo kontekstas ir dalyviai. Pusiau struktūruotas interviu su vaikais, sergančiais cukriniu diabetu, buvo atliekamas nuo 2019-02-05 iki 2021-09-01. Pasirinkti vaikai, kadangi nuo jų sveikatos kompetencijos (tiek žinių, tiek įgūdžių, tiek vertybinių nuostatų) priklauso jų sveikatos būklė. Pasirinktas pusiau struktūruotas interviu metodas kaip vienas iš veiksmingiausių ir lanksčiausių duomenų rinkimo metodų, leidžiančių tyrimo dalyviams papasakoti apie tiriamąjį reiškinį savo mintimis, gauti tyrimo tikslui reikalingą informaciją ir suteikti galimybę informantams atsakyti išsamiau (Žydžiūnaitė ir Sabaliauskas, 2017). Prieš pradedant interviu buvo gauti raštiški vaikų tėvų sutikimai, kadangi vaikai nepilnamečiai. Po to tyrimo dalyviams buvo duodama dalyvio sutikimo forma, kurioje įvardytas tyrimo tikslas, nurodyti bendri interviu aspektai, taip pat žodžiu buvo paaiškinama, kas neaišku, atsakoma į tyrimo dalyviams kylančius klausimus ir paprašyta pasirašyti. Pasirašius vienas egzempliorius įteiktas tyrimo dalyviui, o kitą egzempliorių pasiliko tyrėjas. Interviu truko nuo 35 min. iki 70 min., įrašai daryti pasitelkus telefone esantį diktofoną (pasirinktas interviu režimas).

Tyrimo imtis. Imtis sudaryta remiantis „sniego gniūžtės“ principu. Kokybiniame tyrime dalyvavo 7 vaikai (4 mergaitės ir 3 berniukai), kurie serga cukriniu diabetu, jų amžius nuo 12 iki 16 metų. Vaikų sirgimo trukmė – nuo 1 iki 7 metų. Atliekant kokybinį tyrimą nėra aiškiai apibrėžtas tikslus imties dydis, tačiau tyrimo dalyviai privalo būti susieti su tiriamuoju reiškiniu. Tyrimo duomenų prisotinimo principas buvo pasiektas atlikus 7 interviu su cukriniu diabetu sergančiais vaikais.

Vaikai pasirinkti pagal šiuos kriterijus: 1) vaikai, kurie serga cukriniu diabetu; 2) cukriniu diabetu sergantys vaikai, kurių amžius nuo 7 iki 18 metų. Tyrimo dalyviai buvo užkoduoti raidėmis: A, B, C, D, E, F, G siekiant išlaikyti konfidencialumą.

Tyrimo etika. Tyrimo metu laikytasi mokslinių tyrimų etikos principų: laisvanoriškumo, konfidencialumo, pagarbos žmonėms ir jų bendruomenėms. Todėl prieš atliekant tyrimą vaikams, kurie serga cukriniu diabetu, ir jų tėvams buvo paaiškintas tyrimo tikslas, jo paskirtis ir eiga, aptartos konfidencialios detalės. Tyrimo dalyviams buvo paaiškinta, kad

dalyvavimas tyrime yra laisvanoriškas, ir jei jie norėtų nutraukti interviu, gali tai padaryti bet kuriuo metu. Mokslinių tyrimų etikos sričiai, Novelskaitės ir Pučėtaitės (2016) manymu, priklauso ir įvairios (ne)tinkamo elgesio formos (pvz., duomenų falsifikavimas), todėl interviu tekstai perrašyti taip, kaip buvo kalbama, tyrime pateiktos originalios (netaisytos) citatos.

Duomenų analizė. Tyrimo metu gauti duomenys analizuojami taikant turinio (*content*) analizę. P. Mayring (2014) nurodo, kad turinio analizė yra validus metodas, kuris leidžia, remiantis analizuojamu tekstu, padaryti specifines išvadas. Kokybinė turinio analizė atlikta laikantis induktyvios, tyrimo duomenimis grįstos temų sudarymo logikos. Atliekant kokybinę turinio analizę buvo laikomasi šio nuoseklumo (Žydžiūnaitė ir Sabaliauskas, 2017): transkribuotų interviu tekstų daugkartinis skaitymas ir apmąstymas, duomenų kodavimas išskiriant tekste prasminius vienetus; kodų grupavimas į potemes; temų formavimas iš potemių; temų / potemių integravimas į analizuojamo fenomeno kontekstą; tyrimo duomenų interpretavimas. Diskusijos dalyje tyrimo duomenys analizuojami kitų tyrėjų įžvalgų kontekste.

2. Ugdymo(si) aplinkos svarba sveikatos kompetencijų įgijimui

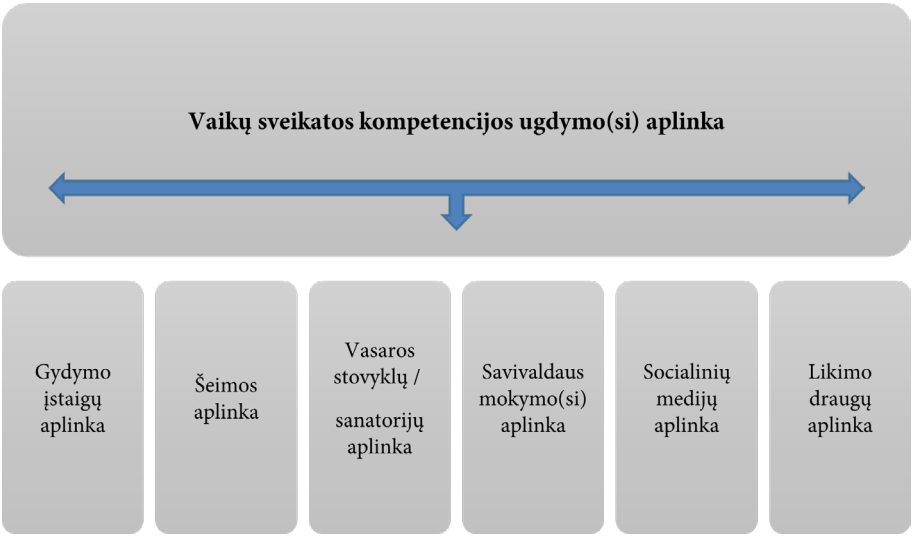
Mokslinėje literatūroje galima rasti įvairių ugdymo(si) aplinkos apibrėžimų. Lietuvos Respublikos teisės aktuose. Lietuvos ilgalaikėje strategijoje „Lietuva 2030“ (2012), „Geros mokyklos koncepcijoje“ (2015) *ugdymosi aplinka* yra apibrėžiama kaip „dinamiška, funkcionali ir atvira, tai reiškia, kad kinta mokymosi aplinkos tiek mokyklos aplinkoje, tiek kitose erdvėse“. Mokykloje ugdymosi aplinka tampa įvairi – tai ir „klasės be sienų“, ir ugdymosi procesas įvairiose mokyklos patalpose ar lauke. Be šių yra svarbi ir ugdymą(si) stimuliuojanti aplinka: tai – įvairios priemonės (knygos, detalių ir įrangos įvairovė, funkcionalūs ir originalūs baldai, spalvos, medžiagos, formos, apšvietimas, augalai, kvapai ir panašiai). Kintant ugdymo(si) aplinkai yra skatinama, kad vaikai patys mąstytų, reikštų idėjas ir plėtotų savo kūrybiškumą, todėl labai svarbu, kad mokyklos aplinka būtų prieinama ir saugi visiems vaikams, taip pat ir vaikams, sergantiems cukriniu diabetu. Ugdymo(si) aplinka taip pat apibrėžiama kaip mokytojų ir mokinių kuriama tam tikra kultūra ir tuo pačiu metu formuojama fizinė aplinka. Ruškienė ir Slušnienė (2015) ugdymo(si) aplinką apibrėžia kaip visumą, kurią sudaro ne tik sienos, daiktai ir aplink esantys pastatai, bet ir visuma, ir patys žmonės, kurie dalyvauja ugdymo(si) aplinkoje. Taigi ugdymo(si) aplinkoje yra labai svarbus mikroklimatas, nuo kurio priklauso vaiko emocijos ir mokinių, jų tėvų ir mokytojų bendradarbiavimas siekiant numatytų ugdymosi tikslų (Ruškienė ir Slušnienė, 2015; Moolman et al., 2020). Aplinka turi apimti visas tris mokymosi formas: žinių įgijimą (kognityvinis mokymasis), jausmų ir emocijų pokyčius (emocinis mokymasis) ir fizinių arba motorinių veiksmų ar veiklos išmokimą (psichomotorinis mokymasis) (Šiaučiukėnienė et al., 2006). Cukriniu diabetu sergantiems vaikams ir jų tėvams reikalinga įvairi sveikatos kompetencijos ugdymo(si) aplinka, kurioje galima būtų įgyti ne tik reikiamų žinių, bet ir ugdytis

sveikatos kompetencijos įgūdžius. Bulikaitė (2022) pabrėžia, kad labai svarbios sveikatos kompetencijos žinios, susijusios su I tipo diabetu, priežiūra ir gydymu, ligos kontrole, ligos pasekmėmis ir tuo, kaip jų išvengti, su sveika ir subalansuota mityba. Kiti svarbūs aspektai yra sveikatos kompetencijos įgūdžiai, susiję su vaiko liga: tai – cukraus kiekio kraujyje sekimas, mokėjimas pasimatuoti cukraus kiekį kraujyje, insulino leidimas ir injekcinių vietų parinkimas, insulino dozių apskaičiavimas pagal maisto produktus, maisto produktų pasirinkimas ir angliavandenių ir riebalų kiekio skaičiavimas, ūmios būklės atpažinimas ir greitas veikimas (Amiel et al., 2019; Bozkurt et al., 2021; Chiesa ir Marcovecchio, 2021). Taigi vaikai, sergantys cukriniu diabetu, reikiamų žinių ir įgūdžių įgyja ligoninėse, šeimoje, mokykloje ir vasaros stovyklose. Tačiau atkreiptinas dėmesys į tai, kad moksliniuose darbuose autoriai, rašydami apie tai, jų neįvardija aplinka, o tik kalba, kur galima įgyti tiek žinių, tiek įgūdžių, būtinų ligos kontrolei. Šiame tyrime vaikų, sergančių cukriniu diabetu, *sveikatos kompetencijos ugdymo(si) aplinka* laikomos aplinka, atitinkančios šiuos kriterijus:

- aplinkoje įprastai yra asmuo, kuris organizuoja ir vykdo sveikatos mokymus, padeda vaikams ir / ar jų tėvams įgyti sveikatos kompetenciją (plačiąja prasme – sveikatos ugdytojas);
- aplinkoje cukriniu diabetu sergantys vaikai ir jų tėvai ugdosi sveikatos kompetenciją;
- aplinkoje vykdomos šios ugdymo(si) funkcijos: konsultavimas, demonstravimas ir mokymas;
- aplinkoje vyksta patirtinis ugdymas(is) ir sudaromos sąlygos įgyti sveikatos stiprinimo ir palaikymo žinių, įgūdžių, taip pat formuojamos sveikatai palankios vertybinės nuostatos.

3. Vaikų, kurie serga cukriniu diabetu, sveikatos kompetencijos ugdymo(si) aplinka

Atlikus tyrime dalyvavusių vaikų, sergančių cukriniu diabetu, patirčių analizę, buvo išskirtos šešios vaikų sveikatos kompetencijos ugdymo(si) sritys: gydymo įstaigų aplinka, šeimos, vasaros stovyklų / sanatorijų aplinka, savivaldaus mokymosi aplinka, socialinių medijų aplinka ir likimo draugų aplinka (1 pav.).



1 pav. Vaikų sveikatos kompetencijos ugdymo(si) aplinka

Fig. 1. The environments for the development of children's health competences

Tyrimo rezultatai rodo, kad **gydymo įstaigų aplinkoje** vaikai įgyja žinių apie I tipo diabetą, jo gydymą ir priežiūrą, išsiugdo sveikatos kompetencijos įgūdžius: kaip leistis insuliną, kaip sekti cukraus kiekį kraujyje, kaip tinkamai pasirinkti maisto produktus. Tyrimo dalyviai akcentavo: „<...> *tai pirmiausia ligoninėse viską sužinai apie cukrinį diabetą, apie insuliną.*" *(B);* „<...> *na aš irgi galiu pasakyt, kai atsiguliau į ligoninę, tai gydytojai, seselės sako apie maistą ten, angliavandenius.*" *(C).* Taigi gydymo įstaigų aplinka yra viena pirmųjų, kurioje vaikai, sergantys cukriniu diabetu, gauna reikiamų žinių ir įgyja atitinkamų sveikatos kompetencijos įgūdžių.

Šeimos aplinkoje tėvai primena vaikams apie ligos kontrolę ir padeda pasirinkti maisto produktus, formuoja vaikų nuostatą dėl sveikatos: „<...> *man tėvai, pavyzdžiui, viską pasako ir paaiškina.*" *(D);* „*Mama ir tėtis man sako, kad reikia sekti savo cukrų, pataria, ką valgyti, ką atsisakyti.*" *(E),* „*Labiausiai mama man padeda, sureguliuoja kiek ko susileisti, ką pavalgyt.*" *(G).* Galima daryti prielaidą, kad tėvai nori padėti vaikui tinkamai valdyti ligą, todėl jie konsultuoja vaikus dėl to, kokius maisto produktus pasirinkti, kada ir kiek susileisti insulino.

Tyrimas atskleidė, kad **vasaros stovyklose ir sanatorijose**, skirtose cukriniu diabetu sergantiems vaikams, vaikai susitinka su savo likimo draugais, sustiprėja moraliai, ilgainiui prisiima atsakomybę už ligos suvaldymą. Tai iliustruoja tyrimo dalyvių teiginiai: „<...> *labiausiai patinka tai vasaros stovyklos, nes ten sutinki tokius pačius vaikus, kaip aš, mes*

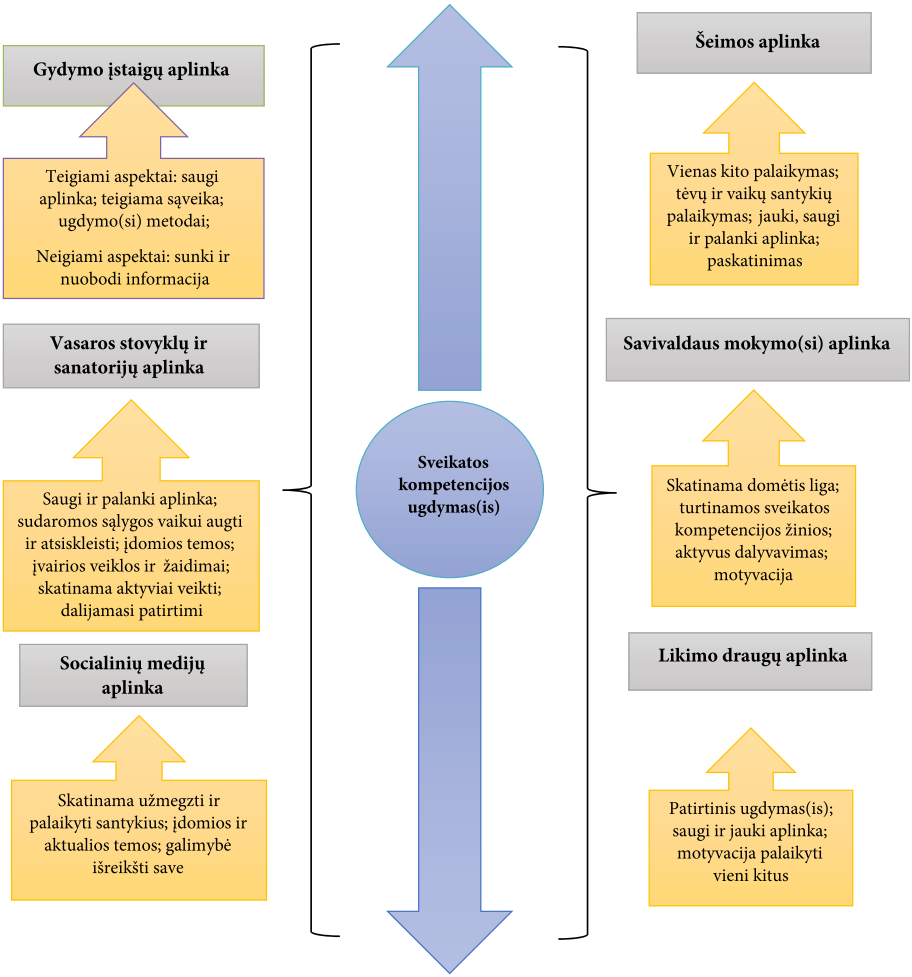
kalbamės, mokomės vieni iš kitų ir šiaip gerai leidžiam laiką.“ (A); „Kiekvieną vasarą važiuoju į sanatorijas, čia būname tris savaites, tai pamokėlės apie diabetą, fizinis aktyvumas, laikas su draugais.“ (F); „<...> vasaros stovyklose mes daug mokomės, būna nemažai pokalbių, pamokėlių apie sveiką mitybą sergant cukriniu diabetu, na ir pokalbiai su draugais <...>.“ (B). Taigi vasaros stovyklos ir sanatorijos prisideda prie vaikų, sergančių cukriniu diabetu, sveikatos kompetencijos ugdymo. Tačiau dalyvių paminėta aplinka padeda vaikams ne tik rūpintis savo sveikata, bet ir susigyventi su liga, susirasti draugų.

Tyrimu identifikuota, kad **savivaldaus mokymo(si) aplinkoje** vaikai, sergantys cukriniu diabetu, savarankiškai gilinasi į I tipo diabeto simptomus, sužino pagrindinius ligos valdymo aspektus*: „Aš, pavyzdžiui, ir pats domiuosi savo liga, skaitau specialiose knygose apie diabetą arba internete ieškau info.“ (E); „<...> turiu nemažai lankstinukų, kuriuos davė gydymo įstaigoje, mėlyną knygą apie diabetą, dar kartais internete naršau.“ (F).* Vaikai, sergantys cukriniu diabetu, norėdami daugiau sužinoti apie savo ligą, skaito specializuotas knygas ir lankstinukus.

Išanalizavus tyrimo duomenis nustatyta, kad vaikai, sergantys cukriniu diabetu, **socialinių medijų ir likimo draugų aplinkoje** turtina sveikatos kompetencijos žinias. Pasak tyrimo dalyvių, *„kai būna stovyklos vasaros ar taip kažkokios ekskursijos, tai mes susitinkam visi draugai, na turiu omenyje sergantys diabetu, ir kalbamės apie viską net ir patikrinam cukrus vienų kitų“ (B), „<..> socialiniuose tinkluose irgi yra grupės, net privačios grupės, kur galima rasti nemažai informacijos pavyzdžiui apie maistą <...>“ (G), „socialiniai tinklai, su draugais pasikalbam ir, manau, mokomės vieni iš kitų“ (F).* Taigi apibendrinant galima pasakyti, kad vaikai ugdo(si) sveikatos kompetenciją socialinių medijų ir likimo draugų aplinkoje, komunikuodami vieni su kitais jie moko(si) vieni iš kitų ir dalijasi patirtimi.

Tačiau svarbi ne tik sveikatos kompetencijos ugdymo(si) aplinkos įvairovė, bet ir tai, kaip skirtinga aplinka skatina vaikus, sergančius cukriniu diabetu, įsitraukti ir aktyviai ugdytis sveikatos kompetencijas.

Remiantis empirinių duomenų analize sudaryta schema, kurioje pavaizduota, kaip sveikatos kompetencijos ugdymo(si) aplinka veikia sveikatos vaikų kompetencijos ugdymą(si) (2 pav.).



2 pav. Ugdymo(si) aplinkos poveikis vaikų sveikatos kompetencijos ugdymui(si)

Fig. 2. The influence of educational environments on the development of health competences in children

Analizuojant tyrimo duomenis apie vaikų, kurie serga cukriniu diabetu, sveikatos kompetencijos ugdymo(si) aplinkos svarbą ugdymui(si), buvo išskirti keturi veiksniai. Tyrimo rezultatai rodo, kad vaikams yra svarbu, jog **ugdymo(si) aplinka būtų saugi ir jauki**, tada jie jaučiasi gerai ir gali aktyviai veikti. Tyrimo dalyviai nurodė: *„Kai kažką darai, mokaisi ar klausai apie cukrinį diabetą, tai man yra aktualu, kad toje vietoje jausčiausi gerai, patogiai ir laisvai.“ (A); „<...> o man dar patinka, kai ateini į užsiėmimus, jautiesi ir jaukiai, ta aplinka*

tokia šilta, graži ir tada atrodo norisi būti.“ (F). Be to, pasak tyrimo dalyvių, tai ugdymą(si) įprasmina kaip vieną iš svarbių kasdienių gyvenimo aspektų: *„Bent kaip aš galvoju, kad kai sergi cukriniu diabetu, tu turi domėtis, juk tai mano liga ir man reikės su tuo gyventi visą gyvenimą, ne tėvų liga, o mano... <...> tai kai mokiniesi, na skaitai, žiūri, tai yra svarbu, nes sužinai visko daugiau <...>.“ (B).*

Kitas išryškėjęs svarbus aspektas, kuris veikia vaikų ugdymą(si), yra **galimybė jiems atsiskleisti, būti savimi ir reikšti savo mintis**. Tyrime dalyvavę vaikai akcentavo: *„<...> gal kai gali daryti ir veikti laisvai, na turiu galvoje, kad nebijoti paklausti, kalbėtis užsiėmimų metu, man tas labai svarbu.“ (E); „<...> gal, hm net nežinau kaip čia pasakyti, gal kai sakai, kalbiesi ir niekas nesijuokia.“ (G); „O man patinka, kai visi gerbia vienus kitus, na, pavyzdžiui, kai mes kalbamės apie diabetą su slaugytoja ar kitais specialistais, kiekvienas gali pasisakyti ir visi klausosi.“ (C).* Kai vaikui suteikiama laisvė ir jis nevaržomas, gali ne tik ugdytis sveikatos kompetenciją, bet ir jaustis svarbiu, lygiaverčiu ugdymo(si) proceso dalyviu. Tyrimu atskleista, kad vaikams, kurie serga cukriniu diabetu, yra svarbi bendravimu ir bendradarbiavimu grindžiama sveikatos kompetencijos ugdymo(si) aplinka, kurioje jie gali laisvai bendrauti tiek su savo bendraamžiais, tiek su specialistais. Gerų santykių palaikymas laiduoja sėkmingą sveikatos kompetencijos ugdymą(si).

Išanalizavus tyrimo medžiagą išryškėjo, kad vaikams labai svarbi yra **galimybė ugdytis per patirtis** (mokytis vieniems iš kitų) bendraujant su kitais vaikais, sergančiais cukriniu diabetu. Tyrimo dalyviai teigė: *„Aš kiekvienais metais dalyvauju stovyklose, nes ten mes mokomės vieni iš kitų, dalinamės kaip mums sekasi, stebim vienas kito cukrų ir panašiai, man tas svarbiausia yra, kažkaip ir mokaisi taip <...>.“ (A); „Aš pritariu savo draugui, mes stovyklose tikrai mokomės vieni iš kitų.“ (B); „Sanatorijose mes irgi mokomės vieni iš kitų, susitinkam, kalbamės, apsitariam dėl cukrų, maisto, man taip gal įdomiausia.“ (F).* Tai leidžia vaikams jaustis visaverčiais ir palankiai veikia jų sveikatos kompetencijos ugdymą(si). Be to, tyrimas parodė, kad sveikatos kompetencijos ugdymo(si) **aplinkos organizatoriai motyvuoja vaikus į ugdymo programą įtraukdami įdomias temas, įvairią veiklą, žaidimus**. Tyrimo dalyviai pasakojo: *„Viskas priklauso ir kas veda užsiėmimus, ir kaip tai daro, nes jei pasenusi informacija arba tas pats per tą patį, tai visiškai nesinori klausyti ir tada tiesiog aš nebeeinu.“ (D); „Man patinka, kai pateikia kažkaip įdomiai, kūrybiškai, kai įdomu klausytis ir mokytis apie cukrinį diabetą.“ (G); „Aš irgi pritariu, nes, pavyzdžiui, vasaros stovyklose, tai ten tiek visko prigalvoja ir kaip įdomu, tai vienu metu ir mokaisi, ir puikiai leidi laiką, tai norisi sugrįžti vėl ir vėl.“ (E); „Ir dar galėčiau pridurti, kai gali bendrauti su mokytoju, na kuris veda užsiėmimus gražiai, tada visai kitaip.“ (F).* Visa tai užtikrina ugdymo(si) proceso patrauklumą ir efektyvumą, nes vaikai aktyviai dalyvauja ugdymo(si) procese turtindami žinias ir lavindami sveikatos kompetencijos įgūdžius, formuodamiesi sveikatai palankias vertybines nuostatas. Vaikus motyvuoja palanki, šilta, bendradarbiaujanti sąveika tarp jų ir sveikatos ugdytojų.

4. Diskusija

Tyrimu atskleista cukriniu diabetu sergančių vaikų sveikatos kompetencijos ugdymo(si) aplinkos įvairovė: šeima***, medicinos įstaigos, vasaros stovyklos / sanatorijos, savivaldus mokymas(is), socialinės medijos ir likimo draugai***. Minėtose ugdymo(si) aplinkose vaikai ne tik įgyja reikiamų sveikatos kompetencijos žinių, įgūdžių ir formuojasi vertybines nuostatas, bet ir bendrauja su kitais vaikais, dalijasi patirtimi, gerai praleidžia laiką, mokosi būti savarankiškais ir užsiima fizine veikla, kuri skatina būti fiziškai aktyviems. Autoriai (Illy, 2019; Tumini et al., 2020; Hasan et al., 2020), analizuodami cukriniu diabetu sergančių vaikų sveikatos kompetencijos ugdymą, taip pat mini, kad reikiamų žinių ir įgūdžių vaikai įgyja šiose vietose [pastaba – autoriai nevadina *aplinka*]: gydymo įstaigose, šeimoje, sanatorijose / stovyklose ir tarp likimo draugų. Tyrimu identifikuota šias vietas apimanti sveikatos kompetencijos ugdymo(si) aplinka yra panaši tiek sveikatos kompetencijos turiniu (ligos kontrolė, sveika ir subalansuota mityba, fizinis aktyvumas, insulino poreikis ir jo dozavimas), tiek taikomais ugdymo(si) metodais ir veikla (paskaitos, išvykos, žaidimai, aktyvi veikla ir ekskursijos). Tačiau atkreiptinas dėmesys į tai, kad Lietuvoje sveikatos kompetencijos ugdymas(is) cukriniu diabetu sergantiems vaikams yra trumpalaikis, stokojama ilgalaikio ir nuolatinio proceso, todėl vaikai ir jų tėvai savarankiškai ugdosi savivaldaus mokymosi būdu (specializuotos knygos, socialiniai tinklai). ***Taigi šiuo empiriniu tyrimu išskirta vaikų, kurie serga cukriniu diabetu, sveikatos kompetencijos ugdymo(si) aplinka, aptarta jos įvairovė. Kiti mokslininkai, analizavę vaikų sveikatos kompetencijos ugdymą ir tyrę, kur vaikai įgyja žinių ir įgūdžių, sveikatos kompetencijos ugdymo(si) aplinkos neišskyrė.*** Tyrimo metu paaiškėjo, kad vaikams yra įdomi ugdymo(si) aplinka ir veikla, skatinanti veikti aktyviai. Vaikai dalyvauja įvairioje ugdymo(si) aplinkoje, tačiau kai kur (pvz., gydymo įstaigose) informacija kartojama, sveikatos kompetencijos žinios perteikiamos nuobodžiai. Vaikai vasaros stovyklose, sanatorijose ir likimo draugų aplinkoje bendrauja ir bendradarbiauja su kitais vaikais, sergančiais cukriniu diabetu, ir taip mokosi vieni iš kitų dalydamiesi patirtimi. Mokslininkai (Chinnici et al., 2019; Gurkan ir Bahar, 2020), analizuodami cukriniu diabetu sergančių vaikų ugdymą(si), pabrėžia, kad svarbu jiems suteikti reikiamų sveikatos kompetencijos žinių ir ugdyti įgūdžius, kurie padėtų išsaugoti vaiko sveikatą. Kalbėdami apie vaikų ugdymo(si) procesą autoriai (Gudžinskienė, 2000, 2010; Gerulaitis, 2017; Ivaškienė ir Malinauskienė, 2021) akcentuoja, kad ugdymas turi būti nukreiptas į besimokantį vaiką, mokymosi turinys turi būti pritaikytas prie vaiko individualių poreikių, o ugdymo metodai turi būti įvairūs ir sudominantys.

Empirinio tyrimo metu paaiškėjo, kad sąveika tarp ugdytojo ir ugdytinių yra labai svarbi kuriant palankią ugdymosi aplinką ir perduodant sveikatos kompetencijos žinias, vykdant diskusiją su vaikais. ***Jei ugdytojas geba motyvuoti vaikus, sužadinti vaikų norą ugdytis ir užmegzti šiltus santykius, tai vaikai mielai dalyvauja tokiose diskusijose ir įgyja sveikatos kompetencijos sandų.*** Vaikų sveikatos kompetencijos ugdymo(si) procese yra labai svarbus ugdytojo vaidmuo ir ugdytojo mokėjimas elgtis su vaiku (Monkevičienė, 2003; Ivaškienė Malinauskienė, 2021). Tyrimas atskleidė, kad vaikai norėtų įvairesnių metodų ir

veiklos sveikatos kompetencijos ugdymo(si) procese.

Išvados

Vaikams, kurie serga cukriniu diabetu, yra svarbi ugdymo(si) aplinkos įvairovė ir jos prieinamumas, kadangi cukrinis diabetas yra lėtinė liga ir ją reikia tinkamai kontroliuoti, kad ateityje būtų išvengta galimų komplikacijų. Empiriniu tyrimu nustatyta, kad vaikams, sergantiems cukriniu diabetu, sudaromos galimybės sveikatos kompetenciją įgyti šiose aplinkose: gydymo įstaigų, šeimos, vasaros stovyklų / sanatorijų, savivaldaus mokymo(si), socialinių medijų ir likimo draugų. Minėtose ugdymo(si) aplinkose vaikai gauna žinių apie I tipo cukrinį diabetą, ugdosi įgūdžius, padedančius vaikui kontroliuoti lėtinę ligą, be to, vaikai formuojasi vertybines nuostatas ir supranta, kad sveikata yra pati svarbiausia.

Tyrimu identifikuota, kad cukriniu diabetu sergantiems vaikams svarbu sukurti įvairią ugdymo(si) aplinką, kurioje jie visapusiškai galėtų gilintis į savo ligą. Todėl, cukriniu diabetu sergantiems vaikams organizuojant sveikatos kompetencijos ugdymą, labai svarbu sudaryti sąlygas jiems interaktyviai ugdytis sveikatos kompetenciją, sudaryti patyriminio ugdymosi sąlygas, nes vaikai noriai dalijasi savo patirtimi ir įsitraukia į sveikatos kompetencijos ugdymo(si) procesą aptardami jiems aktualias temas. Organizuojant sveikatos kompetencijos ugdymą cukriniu diabetu sergantiems vaikams rekomenduotina įtraukti daugiau individualių konsultacijų, diskusijų, kuriose vaikai galėtų užduoti jiems asmeniškai svarbius klausimus, kuriose būtų taikomi aktyvūs, kūrybiški ir vaikų kritinį mąstymą skatinantys metodai.

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THE DEVELOPMENT OF THE HEALTH COMPETENCES OF CHILDREN WITH DIABETES MELLITUS IN DIVERSE ENVIRONMENTS

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Summary

Diabetes mellitus is a disease during which certain processes in the body which maintain a normal blood glucose concentration become imbalanced. With diabetes, the level of blood glucose increases, affecting the entire metabolism. Diabetes mellitus is becoming a leading disease in paediatric endocrinology, and causes health problems and complications that can shorten life expectancy. In Lithuania, cases of type 1 diabetes mellitus in children have been registered since 1983. More than 995 children and young people (up to 19 years of age) were registered in 2019. On average, more than 80 children are diagnosed with diabetes in the country per year. After 10–20 years, poorly controlled diabetes can cause damage not only to the endocrine system, but also to other bodily systems: it can cause the appearance of diabetic retinopathy, diabetic neuropathy, chronic kidney disease, cardiovascular diseases (stroke, ischemic heart disease, peripheral vascular diseases), infertility problems, and foot complications. Moreover, in order to keep glucose levels as optimal as possible, children with diabetes need daily insulin injections, as without them they are not able to survive. Diabetes mellitus becomes a challenge for the whole family, as the rhythm of family life changes and additional responsibilities to maintain the stability of the child's health are assumed. In order to control the disease, children and their parents need information, skills and values that can be acquired in various educational environments. Research conducted in Lithuania and abroad is focused on the treatment of patients with diabetes, disease management, and the psychological problems experienced by parents who have learned about their child's illness. Nonetheless, this topic has not been extensively studied from an educational perspective, and there is a lack of research that analyses the diversity of environments in which the health competences of children with diabetes mellitus can be developed. Researchers note that the involvement of children with diabetes in the process of health competence development as well as their acquisition of knowledge and skills depend on their educational environments. By providing educational functions, the shapers of educational environments convey knowledge regarding health competence, teach, offer advice and demonstrate the necessary skills, as well as form value attitudes

that help children and their parents to achieve better control of the disease, which is the goal of secondary prevention. Thus, the diversity of environments for the development of health competences helps parents and their children to learn as much as possible about this chronic disease and acquire skills that enable them to properly manage its consequences. However, not all environments for the development of health competences encourage their development. Accordingly, this article aims to reveal the development of the health competences of children with diabetes mellitus in various environments.

The research object *is the development of the health competences of children with diabetes mellitus in various environments.* ***The aim of the article*** *is to reveal the development of the health competences of children with diabetes mellitus in various environments.* ***Tasks:*** *1. Highlight the importance of the educational environment for education. 2) Identify environments for the development of children's health competences. 3) Reveal how and in which environments children with diabetes mellitus develop health competences.* ***Research questions:*** *1. What environments exist for the development of the health competences of children with diabetes mellitus? 2. What health competence aspects do children with diabetes mellitus develop in various environments? 3. Which educational environments are the most acceptable for children and why?* ***Research methods.*** *Theoretical – the analysis, summarization and systematization of scientific literature methods were used; empirical – the semi-structured interview method was used for data collection; the content analysis method was applied for the analysis of research data.* ***Research context and participants****. Semi-structured interviews with children with diabetes mellitus were conducted in the period from 5 February 2019 to 1 September 2021. Children were chosen because their health states depended on their health competences (knowledge, skills and value attitudes). In total, 7 children (4 girls and 3 boys) aged from 12 to 16 with diabetes mellitus agreed to participate in the qualitative research. The children had been diagnosed from 1 to 7 years ago and were selected according to the following criteria: 1) children with diabetes mellitus; 2) children with diabetes mellitus aged from 7 to 18 years.*

The analysis of the experiences of children with diabetes mellitus who participated in the research allowed six environments for the development of children's health competences to be distinguished: medical institutions; family environments; summer/health camps; self-directed learning environments; social media; and environments involving other people with similar issues. However, it is not only the diversity of environments for the development of health competence that is important, but also how different environments encourage children with diabetes mellitus to get involved and actively develop their health competences. The analysis of research data on the importance of environments for the development of health competences in children with diabetes mellitus allowed four factors to be distinguished. The research results show that it is important for children that their educational environment: is safe and cosy; provides them with the opportunity to reveal their personalities, be themselves and express their thoughts; enables them to develop through experiences; and is organised in a manner that motivates children and includes interesting activities and creative methods. ***Conclusions****: 1. Children with diabetes mellitus find the diversity and availability*

of educational environments important, since diabetes is a chronic disease and needs to be extensively controlled to avoid possible complications in the future. It is easier for children with diabetes to get involved in the process of health competence development when interesting and relevant topics are discussed, when there is mutual encouragement and interaction between the participants of the educational process, and when the child can actively engage and learn. 2. Empirical research established that children with diabetes mellitus can acquire health competences in the following environments: medical institutions; family environments; summer/health camps; self-directed learning environments; social media; and environments involving other people with similar issues. In these environments, children receive knowledge regarding type 1 diabetes mellitus, develop skills that help them to control this chronic disease, and form value attitudes and understand that health is the most important thing. 3. The research identified that it is important for children with diabetes mellitus to create various educational environments where they can fully understand their disease.

***Keywords**: children, diabetes mellitus, educational environment, health competence.*

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THE RELATIONSHIPS BETWEEN GENDER IDENTITY, LONELINESS, AND BODY DISSATISFACTION AMONG ADOLESCENTS

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Abstract

Identity formation is an important developmental process during adolescence. The interplay between adolescents' gender identity, loneliness, and body dissatisfaction is a complex and multifaceted phenomenon. Adolescent gender identity issues are thought to be related to loneliness, and body dissatisfaction is a risk factor for greater loneliness. It can be hypothesized that adolescents experiencing gender identity issues could feel lonelier when they have greater body dissatisfaction. The present study addresses the following two research questions: (1) Are adolescents' (both girls and boys) gender identities associated with loneliness, body dissatisfaction, and fear of negative appearance evaluation? (2) Does body dissatisfaction and fear of negative appearance evaluation mediate between adolescents' gender identity and loneliness, and does this differ for girls and boys? The sample consists of 211 adolescents (54.5% girls) aged 15–17 (M_{age} = 16.20) from five secondary schools in Vilnius. Adolescent gender identity was measured using the Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults (GIDYQ-AA); body dissatisfaction was established using the Body Shape Questionnaire (BSQ); loneliness was established using the UCLA Loneliness Scale; and

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apprehension regarding appearance evaluation was established using the Fear of Negative Appearance Evaluation Scale (FNAES). The results show that the gender identity of both girls and boys is negatively related to loneliness, body dissatisfaction, and fear of negative appearance evaluation. The results also revealed that the association between gender identity and loneliness was mediated by body dissatisfaction, and that the association between body dissatisfaction and loneliness was stronger for boys than for girls. However, fear of negative appearance evaluation does not mediate the association between gender identity and loneliness. These results illustrate the importance of examining adolescents' gender differences regarding body dissatisfaction, loneliness, and gender identity, especially the experiences of boys regarding body dissatisfaction.

Keywords: *adolescents, gender identity, loneliness, body dissatisfaction, fear of negative appearance evaluation.*

1. Introduction

During adolescence, identity development is a crucial developmental process. Before creating a distinct identity, a young person experiments by making choices in a variety of areas (Becker et al., 2017; Schwartz et al., 2012). Identity development is a trial-and-error process. Identity can be defined as a sense of continuity and self that emerges from the interaction of several contexts (such as an individual's surroundings, including their family, school, or social group). One element of identity is gender identity. In addition, at this age, there is a growing need for gender identification in preparation for the transition to emerging adulthood, and in preparation for future perspectives on the role of men and women and stereotypes in society (Egan & Perry, 2001). Thus, adolescents consider the issue of gender identity particularly intensely. Gender identity is defined as a person's psychological sense of their gender and the associated attribution or non-attribution of oneself to a particular gender (APA, 2015). Gender identity involves one's perspective of their body, which is mirrored in how they show themselves and behave, or how they express themselves sexually (via dress, speech, etc.). Gender identity is further complicated by increased social pressure to conform to culturally prescribed gender roles. Adolescents, who are undergoing a period of intense formation and notable physical and mental changes, are likely to have questions about gender identity. As a result, all adolescents inevitably try to figure out their gender identity, and some of them struggle with it at both the clinical and non-clinical levels (Becker et al., 2017; Diamond, 2020).

Adolescents exploring or embracing diverse gender identities may encounter unique challenges (e.g., stigma, prejudice, internalized homophobia) in addition to general stressors and stressors in their social environments that threaten their mental health and overall well-being (Meyer, 2013; Pereira, Silva, & Beatriz, 2022; Russell & Fish, 2016). Adolescents may face discrimination, victimization, social exclusion, bullying, and harassment, which

can increase stress and anxiety, depression levels, and loneliness (Eres et al., 2021; Marshal et al., 2011; Mustanski, Andrews, & Puckett, 2016; Russell et al., 2021). Adolescents with gender identity issues do not feel safe in Lithuania, because the country has a well-established heteronormativity and is regarded as one of the most homophobic countries in the European Union (ranked 36th out of 49 countries in the ILGA-Europe 2023 report). Examining the link between adolescent gender identity and psychosocial functioning (e.g., loneliness) is necessary in order to provide guidelines for preventive work (for example, counseling) with adolescents experiencing psychosocial issues in the formation of gender identity, to base intervention programs on ensuring better adjustment in late adolescence, and to help schools implement policy decisions such as those related to sexuality education.

1.1. Adolescents' gender identity and loneliness

Adolescence is an important time to study loneliness since it is a time of rapid biological, relational, and social network remodeling (Barreto et al., 2021; Laursen & Hartl, 2013). Adolescents who are unable to adapt to these changes might become lonely. According to the developmental neuroscience perspective, the changes occurring in adolescents' social brains make them vulnerable to developing loneliness (Wong, Yeung, & Lee, 2018). Therefore, feeling different and not fitting in is a common feeling during adolescence. Adolescents who struggle with gender identity or who identify as LGBTQ+ may find loneliness to be particularly distressing. According to numerous studies (Allen et al., 2021; McDanal et al., 2023), adolescents who struggle with gender identity may be more prone to loneliness than their heterosexual and cisgender peers. If the adolescent does not feel pleased with the gender role that is expected and desired of them in the culture in which they live, the experience of loneliness can be very distressing. When there is a discrepancy between one's internal gender identification and the outward expectations and standards set by society, it can cause feelings of isolation and exclusion, and can contribute to increased vulnerability to loneliness. Any deviation from the standard raises concern since the adolescent can analyze, reflect, and draw social comparisons because of their well-developed cognitive capabilities. Gender differences have been studied for a long time, and the relationship between gender and adolescent loneliness is controversial. Examples include girls experiencing more loneliness than boys and vice versa (e.g., Barreto et al., 2021), and some studies even suggest that there are no gender differences at all (Maes et al., 2019). However, loneliness and social isolation in adolescents have only recently started to be investigated alongside gender identity issues (Eres et al., 2021). According to some researchers (e.g., Mereish & Poteat, 2015), adolescents who struggle with gender identity may feel more loneliness as a result of stressors such as discrimination, stigma, marginalization, internalized homonegativity, concealment, and lack of acceptance. Thus, gender identity can have a significant impact on an adolescent's experience of loneliness.

1.2. The role of gender identity in adolescents' body dissatisfaction

Body image is a biopsychosocial and multidimensional construct that encompasses perceptions, cognitions, feelings, and behaviors regarding appearance, functions, and physical abilities (Finato et al., 2013). Adolescence is a period of development associated with rapid changes in body size and shape and the onset of puberty. These changes may lead to body dissatisfaction, as adolescents compare their altered bodies to the sociocultural ideal, standards of their gender, and idealized appearances (Choukas-Bradley et al., 2022; Finato et al., 2013). Body dissatisfaction constitutes an individual's negative feelings or thoughts about their body, including unfavorable assessments of size, form, and muscular tone (Cash, 2012). Since adolescence is a time of natural bodily changes, there may be natural body dissatisfaction for both girls and boys (Calzo et al., 2012). Many studies find gender differences in body image issues: body dissatisfaction is more frequent among adolescent girls than adolescent boys, but it is also present in boys (Bucchianeri & Neumark-Sztainer, 2014; Ferreiro, Seoane, & Senra, 2014; Flores, Cruz, & Gascón, 2017). It is commonly stated that body dissatisfaction tends to be normative, especially among females (Kusina & Exline, 2019). It is also well-known that body dissatisfaction can contribute to mental health issues, e.g., anxiety, depression, and loneliness (Forste, Potter, & Ericson, 2017; McLean et al., 2022; Vannucci & Ohannessian, 2018). For adolescents exploring or embracing gender identities beyond the traditional binary, body acceptance is significant and can become a central axis. For adolescents with gender identity issues, the struggle with body acceptance can be more difficult than for their peers, for several reasons. First, misalignment between gender identity and body: adolescents who struggle with their gender identification may notice a significant difference between how they feel about themselves on the inside and how they look on the outside. They may believe that their body does not correspond to their true identity, which can cause distress (Pulice-Farrow, Cusack, & Galupo, 2020). Second, adolescents are particularly sensitive to social pressures, societal expectations, and norms, especially related to gender roles (Rogers, Nielson, & Santos, 2021). So, adolescents with gender identity issues may feel pressured to conform to the gender expectations of the sex that they were assigned at birth (Spencer et al., 2021). Third, social comparison to peers: when their gender identity does not match their peers' expectations, adolescents may have difficulty accepting their bodies (Diamond, 2020). Therefore, adolescents' body dissatisfaction may be significantly influenced by their gender identification.

1.3. The link between adolescents' gender identity, loneliness, and body dissatisfaction

The interplay between adolescents' gender identity, loneliness, and body dissatisfaction is a complex and multifaceted phenomenon. If their gender identity does not match what others see, adolescents may feel uncomfortable about the conflict between their physical body and how they feel and think about themselves. Thus, gender identity may have

implications for adolescents' relationships with their body and their physical appearance, which in turn may have implications for body image and body acceptance. Knowing that body image involves a degree of body perception and satisfaction or dissatisfaction with it (Loland, 2000), it can be assumed that adolescents with gender identity issues are already dissatisfied with their bodies – that is, that they will have negative thoughts and feelings about their bodies. Because adolescents internalize appearance ideals based on feedback about related body ideals provided by various social resources, such as their peers (Jarman et al., 2021), fear of negative appearance evaluation, feelings of inadequacy, or otherness may occur (Diamond, 2020). If an adolescent does not meet (by objectively or subjectively evaluating themselves) the standard of a man/woman (or masculinity/femininity) in a specific culture, this may affect their body image – i.e., increasing dissatisfaction with one's body can also lead to the fear that one's body will be judged negatively by others. This can lead to withdrawal from social interaction, isolation, and feelings of loneliness. Some results demonstrate the possibility of a complicated, vicious feedback loop between appearance concerns and loneliness in adolescents, especially for girls (Diamond, 2020; Forste, Potter, & Ericson, 2017; Papapanou et al., 2023). Loneliness can be subjective due to the fact that the adolescent themselves avoids social situations, which is caused by body dissatisfaction. It can be hypothesized that adolescents experiencing gender identity issues would experience more loneliness when they have greater body dissatisfaction and more fear of negative appearance evaluation.

1.4. The present study

A review of the relevant literature shows that gender identity is related to loneliness in adolescents. This relationship is mediated and moderated by other factors. Specifically, body dissatisfaction and gender have been separately associated with gender identity and loneliness. It can be assumed that body dissatisfaction can be a mediator of gender identity and loneliness – i.e., it can increase the feeling of loneliness – and that gender may moderate the relationships between gender identity and body dissatisfaction and fear of negative appearance evaluation and loneliness. This theorized relationship is presented in Figure 1. The research object of this study is adolescents' gender identity, loneliness, and body dissatisfaction. Due to inconsistent findings and a lack of data and knowledge, it can be considered that the notion of body dissatisfaction and fear of negative appearance evaluation as mediators between adolescents' gender identity and loneliness, and the differences between girls and boys in this regard, are open questions. The aims of the present study are: (1) to determine associations among adolescents' gender identity, loneliness, body dissatisfaction, and fear of negative appearance evaluation; (2) to examine the possible mediating role of body dissatisfaction and fear of negative appearance evaluation between adolescents' gender identity and loneliness, and how this differs for girls and boys. Thus, the following two research questions emerge: (1) Are adolescents' gender identities associated with loneliness, body dissatisfaction, and fear of negative appearance evaluation? (2) Does body

dissatisfaction and fear of negative appearance evaluation mediate between adolescents' gender identity and loneliness, and does this differ for girls and boys?

Fig. 1. The mediating role of body dissatisfaction and fear of negative appearance evaluation on the relationship between gender identity and loneliness, and the moderating effect of gender

2. Methods

2.1. Participants

The sample consisted of 211 adolescents in the 10th grade from five secondary public schools (gymnasiums) in Vilnius, Lithuania, 54.5% of whom were girls and 45.5% boys. Participants were between the ages of 15 and 17 (M_{age} = 16.20, SD_{age} = 0.43). Adolescent age was selected because most studies on gender identity involve samples of adolescents with a mean age of 16 years (e.g., Pace et al., 2020; Shiffman et al., 2016), and because most older adolescents are just starting to comprehend their potentially non-binary gender identity. The responses to the inquiry "With which gender do you identify?" were dispersed as follows: 49.8% of respondents were female, 40.3% were male, 3.3% responded "other," and 6.6% said "I don't want to answer."

Analyzing the distribution of the study participants by family composition, the majority, or 62.1%, indicated that they live with both parents, 18.5% that they live only with their mother, 0.9% that they live only with their father, 14.7% that they live with their mother and her partner, 0.5% that they live with their father and his partner, 2.8% that they live with other relatives or guardians, and 0.5% that they live alone.

2.2. Instruments

During the study, adolescents were asked to fill out questionnaires assessing:

Gender identity. The Gender Identity/Gender Dysphoria Questionnaire for

Adolescents and Adults (GIDYQ-AA; Deogracias et al., 2007), which consists of 27 items (separate versions for boys and girls based on assigned sex), was used to measure adolescent gender identity. Four indicators of gender identity are included in the questionnaire: Subjective (13 items), Social (9 items), Somatic (3 items), and Sociolegal (2 items). Each item is rated on a 5-point Likert-type scale, marking the most appropriate answer between 1 – *Always* and 5 – *Never* in the last 12 months, with high scores indicating greater gender identity. Sample items (for the questionnaire distributed to girls) include: "In the past 12 months, have you felt more like a boy than like a girl?"; "In the past 12 months, have you felt that you were not a real girl?" (Subjective indicator); "In the past 12 months, have you felt that you did not have anything in common with either boys or girls?"; "In the past 12 months, have strangers treated you as a boy?" (Social indicator); "In the past 12 months, have you disliked your body because it is female (e.g., having breasts or having a vagina)?" (Somatic indicator); "In the past 12 months, have you made an effort to change your legal sex (e.g., on a driver's license or credit card)?" (Sociolegal indicator). A total gender identity score was calculated by adding together the answers to the questions. The GIDYQ-AA had excellent internal consistency in the sample of girls, with Cronbach's α = .931. In the sample of boys, Cronbach's α = .836, indicating good internal consistency. Thus, the internal consistency was good for this study, and was similar to that of the original scale (Cronbach's α = .97; Deogracias et al., 2007).

Loneliness. Adolescents' subjective feelings of loneliness were measured using the UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978). There are 20 items on the scale. Using a 4-point Likert-type scale, each item is rated, and the most appropriate answer is selected: greater loneliness is indicated by higher ratings, which range from 1 – *Never* to 4 – *Often*. Example items include: "How often do you feel that no one really knows you well?" and "How often do you feel that there are people who really understand you?" In the sample of girls, the Cronbach's alpha for this scale was .946, while in the sample of boys it was .968. As a result, this study's internal consistency was excellent and was similar to that of the original scale (Cronbach's α = .96; Russell et al., 1978).

Body dissatisfaction. Negative feelings about one's body size and shape were measured using the Body Shape Questionnaire (BSQ; Dowson & Henderson, 2001). This questionnaire is used to measure body dissatisfaction (Marzola et al., 2022). The questionnaire consists of a total of 14 items. Each item is evaluated on a 6-point Likert-type scale, choosing the most suitable answer option from 1 – *Never* to 6 – *Always*, with higher total scores indicating greater body dissatisfaction. Sample items include: "Have you felt ashamed of your body?"; "Have you been particularly self-conscious about your shape when in the company of other people?" The Cronbach's alpha for this scale in the sample of girls was .958, and in the sample of boys was .920. Thus, the internal consistency was excellent for this study and was similar to that of the original scale (Cronbach's α = .93; Dowson & Henderson, 2001).

Fear of negative appearance evaluation. The Fear of Negative Appearance Evaluation Scale (FNAES; Thomas et al., 1998; cited by Lundgren, Anderson, & Thompson, 2004), which assesses apprehension about appearance, was used to measure this factor. This scale

consists of a total of 6 items, each of which is evaluated on a 5-point Likert-type scale by choosing the most suitable answer from 1 – *Not at all* to 6 – *Extremely*, with higher total scores indicating greater fear of negative appearance evaluation. Sample items include: "I worry that people will find fault with the way I look"; "It bothers me if I know someone is judging my physical shape." The Cronbach's alpha for this scale in the sample of girls was .921, and in the sample of boys was .874. Thus, the internal consistency was excellent (for the girls' sample) and good (for the boys' sample) for this study, and was similar to that of the original scale (Cronbach's α = .94; Lundgren et al., 2004).

2.3. Procedure

This research was approved by the Mykolas Romeris University Ethics Committee (Decision No. 1/2022 dated February 21, 2022). A convenience sampling method was used.

According to the information provided by the Vilnius Municipality and the Ministry of Education, Science, and Sport, there are around 30 state secondary schools in Vilnius where research can be done, excluding gymnasiums where Lithuanian is not the primary language of instruction and some secondary state schools (such as adult or training centers). Only 5 of the 29 secondary state schools that were contacted, or 17% of all secondary state schools, consented to the inquiry. After this, dialogue with the administration of the schools took place for almost 3 months. Collaboration was requested from a large number of schools via email (sending an official letter from the university) and telephone. The parents/guardians of adolescents (N = 393) were informed about the ongoing study after school leaders had given their permission for it to be carried out. As mediated by the school administration, parents/guardians were given informed consent forms (electronically or in writing) with all necessary information regarding the study. A paper informed consent form was used because the response rate for the electronic consent form was poor. In total, 54.2% of parents/guardians gave their child active permission to take the survey, 32.57% did not give permission, and 13.23% did not respond. Only adolescents whose parents/guardians allowed them to participate in the study (by clearly completing the consent form) were eligible to participate. Adolescents could decide for themselves before the study whether they agreed (or not) to participate in the study: 100% of students with active parental/guardian consent agreed to participate in the study. The research questionnaire was placed on the SurveyMonkey electronic platform. The survey was carried out online, and students filled out the form on tablets while in class. The average time taken to complete the questionnaire was around 25 minutes, i.e., within the duration of the lesson. Data was collected in March–May 2022.

The principles of voluntariness, freedom of decision, confidentiality, and other ethical norms were followed during the conduct of the research. Privacy protection was ensured. The significance of honest responses to the questions was emphasized throughout the data collection process, along with the anonymity of the study and the confidential treatment of the data. Additionally, brochures were created and handed to students containing

information offering specialized assistance, including free, remote, face-to-face, weekday, and 24/7 psychological help options and alternatives.

2.4. Data analysis

The processing and analysis of results was conducted using the IBM SPSS v.26.0 statistical package. First, descriptive statistics were calculated for the main study variables (i.e., the fourth scale), which are presented as means and standard deviations. No missing data was observed in valid questionnaires, and comparative statistics are presented in Table 1. Second, Pearson's correlation coefficient was used to test the associations between the main study variables. Correlation analyses are presented in Table 2. Finally, PROCESS v.4.1 for SPSS (Model 14) was used and moderated mediation analysis was performed, with gender identity as the independent variable, loneliness as the dependent variable, and body dissatisfaction and fear of negative appearance evaluation as the mediating variable to test its mediating effect. The moderator was gender. The moderated mediation model argues that the relationship between gender identity (independent variable) and loneliness (dependent variable) through body dissatisfaction and fear of negative appearance evaluation (mediating variable) differs depending on gender (moderating variable). The effect of gender identity on the evaluation of body dissatisfaction and fear of negative appearance and the effect of the evaluation of body dissatisfaction and fear of negative appearance on loneliness is affected by gender. The statistical significance of the moderated and mediated effects was calculated using the bootstrapping method. Statistical significance was determined when zero was not within the 95% confidence interval. The minimum level of statistical significance required in all tests was $p < .05$.

3. Results

Comparing gender identity indicators, loneliness, body dissatisfaction, and fear of negative appearance evaluation estimates according to adolescent gender, the Student's *t*-test for independent samples was applied. The results are presented in Table 1.

Table 1. Means (*M*), standard deviations (*SD*), Student's *t*-test results, and *p*-values from the analysis of differences in scores for gender identity, loneliness, body dissatisfaction, and fear of negative appearance evaluation between girls ($n = 115$) and boys ($n = 96$)

			Girls		Boys			
Variables	Min value	Max value	*M*	*SD*	*M*	*SD*	*t*	*p*
Gender identity	25	125	115.90	11.82	120.90	6.31	3.73	.000
Loneliness	20	80	43.15	13.60	34.19	14.60	−4.60	.000
Body dissatisfaction	14	84	46.40	18.34	27.33	11.65	−8.81	.000
Fear of negative appearance evaluation	6	30	18.47	6.97	13.14	5.68	−6.01	.000

Comparison by gender revealed that girls have significantly poorer gender identity than boys, and they feel lonelier, are more dissatisfied with their bodies and more afraid of the negative evaluation of their appearance than boys.

The correlations for the variables are presented in Table 2.

Table 2. Correlation between gender identity, loneliness, body dissatisfaction, and fear of negative appearance evaluation in the samples of boys and girls

	Gender identity	Loneliness	*Body dissatisfaction*	*Fear of negative appearance evaluation*
Gender identity	1	−.273**	−.219*	−.412**
Loneliness	−.407**	1	.482**	.386**
Body dissatisfaction	−.216*	.484**	1	.431**
Fear of negative appearance evaluation	−.249**	.525**	.666**	1

Note. Correlations below the diagonal represent correlations for girls, and correlations above the diagonal represent correlations for boys.

*$p < .05$; **$p < .01$

Correlation analysis demonstrated that the gender identity of both girls and boys is negatively related to loneliness, body dissatisfaction, and fear of negative appearance evaluation. Thus, the better gender identity of both girls and boys, the lower their loneliness, body dissatisfaction, and fear of negative appearance evaluation. Based on the user's guide to correlation coefficients (Akoglu, 2018), it can be argued that all correlations except girls' fear of negative appearance evaluation and loneliness ($r = .525$, $p < .01$; moderate correlation strength) and body dissatisfaction ($r = .666$, $p < .01$; moderate correlation strength)

are weak (correlation coefficient between 0.2 and 0.5).

The analysis of body dissatisfaction and fear of negative appearance evaluation as a mediating variable and gender as a moderator was then performed in the total sample. Thus, moderated mediation analysis was performed. Two moderated mediation analyses were tested (the first model: gender identity → body dissatisfaction → loneliness; the second model: gender identity → fear of negative appearance evaluation → loneliness), but only one (the first model) indicated a significant effect.

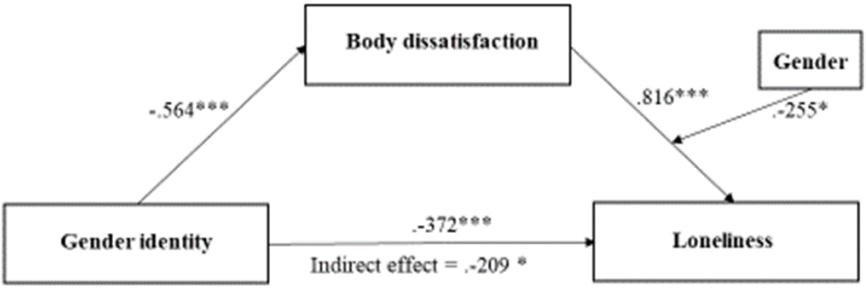

Fig. 2. The results of the mediation analysis of body dissatisfaction in the relationship between gender identity and loneliness; *$p < .05$; ***$p < .001$

In the first model (Figure 2), statistically significant ($p < .001$) values of regression coefficients were observed between gender identity and body dissatisfaction (β = –.564), and between body dissatisfaction and loneliness (β = .816). After including body dissatisfaction as the mediator, the original value of the regression coefficient decreased from β = –.372 to β = –.209. The direct effect of gender identity on loneliness was *B(SE)* = –.372 (.087) with a 95% CI [–.543; –.201] and the indirect effect of gender identity on loneliness was *B(SE)* = –.209 (.067) with a 95% CI [–.370; –.106], confirming that the association between gender identity and loneliness was mediated by body dissatisfaction. The condition indirect effect of body dissatisfaction at the level of the gender group for girls was .305; *SE* = .062; with a 95% CI [.183; .427]. For boys, the effect was .561; *SE* = .105; with a 95% CI [.353; .768]. Specifically, the association between body dissatisfaction and loneliness was stronger for boys than for girls.

In the second model, statistically significant ($p < .001$) values of regression coefficients were observed between gender identity and fear of negative appearance evaluation (β = –.244), but statistically non-significant values were observed between fear of negative appearance evaluation and loneliness (β = .798). After including fear of negative appearance evaluation as the mediator, the original value of the regression coefficient decreased from β = –.334 ($p < .001$) to β = –.042 (p-value was not significant). The direct effect of gender identity on loneliness was *B(SE)* = –.334 (.091) with a 95% CI [–.512; –.155] and the total indirect effect of gender identity on loneliness was *B(SE)* = –.010 (.068) with a 95%

CI [–.145; .127], thus failing to confirm that the association between gender identity and loneliness was mediated by fear of negative appearance evaluation. The condition indirect effect of negative appearance evaluation at the level of the gender group was not significant. This fails to confirm that the mediating effect of fear of negative appearance evaluation in the association between gender identity and loneliness is different for girls and boys.

4. Discussion and conclusions

Given that adolescence is a time of substantial personal and social growth, the interaction between loneliness, body dissatisfaction, and gender identity can be particularly complicated during this time. Adolescence is a time when people are developing their identities, starting relationships, and frequently dealing with pressure from the public regarding their appearance and gender. The results of this study reveal that the gender identities of both girls and boys are negatively related to loneliness, body dissatisfaction, and fear of negative appearance evaluation. Moreover, the association between gender identity and loneliness is mediated by body dissatisfaction, the association between body dissatisfaction and loneliness is stronger for boys than for girls, and fear of negative appearance evaluation does not mediate the association between gender identity and loneliness.

As expected, the association between gender identity and loneliness is mediated by body dissatisfaction and moderated by gender. These results could explain how the combination of societal pressure and body dissatisfaction can take a toll on emotional well-being (Lawler & Nixon, 2011). Persistent negative emotions and feelings of inadequacy can contribute to a heightened sense of loneliness, as individuals may feel misunderstood and unable to connect with others authentically. Adolescents with gender identity issues may experience particularly severe increased levels of stress and pressure to conform to societal norms and expectations (Spencer et al., 2021). Adolescents who identify as gender non-conforming frequently experience prejudice, stigmatization, and a lack of empathy from others under minority stress (Eres et al., 2021; Pereira, Silva, & Beatriz, 2022; Russell et al., 2021). When adolescents feel dissatisfaction with their bodies – which often arises when there is a disconnect between one's body and gender identity and when there is an inability to safely express one's true gender identity in various social situations – they may feel particularly misunderstood, and this can increase their experience of loneliness. Some adolescents may cope with the challenges associated with gender identity and body dissatisfaction by withdrawing from social interactions or avoiding situations that could trigger dysphoria, which can further strengthen feelings of loneliness (Meyer et al., 2021).

Most research results confirm that girls are more dissatisfied with their bodies than boys, and that this is treated as more normative in adolescence among females (Kusina & Exline, 2019). Only very few studies find the opposite result (Presnell, Bearman, & Stice, 2004). The results of our study show that the association between body dissatisfaction and loneliness was stronger for boys than for girls. These results are interesting and can be

interpreted in several ways. The first possible explanation may be the stigma associated with boys' body image issues. Body dissatisfaction, as already mentioned, is often seen as occurring more frequently among girls. Given the prevailing social and cultural norms related to gender roles, boys may be reluctant to reveal or talk about their body dissatisfaction for fear of being stigmatized or not being taken seriously (e.g., O'gorman et al., 2020). Often, cultural and societal norms discourage emotional expression in males. This lack of opportunities to express one's feelings can lead to greater loneliness. It is more atypical than typical for males to talk publicly about their body dissatisfaction, which can lead to a desire to withdraw and avoid talking about the topic. This, consequently, can leave them feeling misunderstood. Second, societal and gender norms have different expectations regarding the appearances of boys and girls (Ward & Grower, 2020). Boys who feel that they do not meet these standards may experience body dissatisfaction, which can lead to feelings of loneliness caused by a lack of social recognition. Third, the importance of peers, peer influence, and comparisons with peers who seem to meet standards (such as muscular and fit physiques, which are often dictated by the media) during adolescence can amplify body dissatisfaction (Lawler & Nixon, 2011). This dissatisfaction can contribute to loneliness, as boys may feel disconnected from their peers. Boys, if they feel that they do not meet these idealized male standards, might experience body dissatisfaction, which can contribute to feelings of loneliness due to a perceived lack of social acceptance. Fourth, different received or/and perceived social support networks and methods of coping with emotional discomfort may exist for boys and girls (Frison & Eggermont, 2016). Girls frequently place a greater emphasis on interpersonal interactions and emotional expression. While looking for intimate connections to express their emotions, they might be more likely to talk about body dissatisfaction with friends or family members, which can alleviate feelings of loneliness. Moreover, girls might be more prone to seeking out social support when dealing with body dissatisfaction, while boys might be more likely to internalize their feelings such as by avoiding or withdrawing from social interactions. Thus, the results of this study demonstrate the need to begin to pay more attention to the experiences of boys regarding body dissatisfaction.

An unexpected result indicates that the association between gender identity and loneliness is not mediated by fear of negative appearance evaluation, and is not moderated by gender. Due to changing societal norms in recent years, boys, just like girls, might feel social pressure to conform to certain appearance ideals, and may also fear negative appearance evaluation (Nielson et al., 2023; Xu et al., 2010). This could also indicate that fear of negative appearance evaluation is a normal experience in adolescence for both boys and girls.

Given the unique challenges that adolescents with gender identity issues face regarding body acceptance, they must have access to supportive environments and mental health resources that can assist them in their self-discovery, self-acceptance, and overall well-being, e.g., by reducing loneliness given the special obstacles that adolescents encounter around body acceptance. Thus, it is especially important to create inclusive and affirming environments that recognize and validate diverse gender identities.

Limitations and directions for future research

It is important to discuss the main shortcomings and limitations of this research and possible directions for future studies. The first limitation of this work is the research sample. The sample of the study included senior high school students in the Lithuanian capital – Vilnius. As such, it did not represent the Lithuanian adolescent population. It is important to emphasize that the sample is not clinical and is very small, so the results reveal only possible tendencies. A greater sample size would enable more intricate calculations. Adolescents from towns and cities smaller than Vilnius may enrich the sample. The fact that the research participants were only in the 10th grade was another limitation, as data could also be collected from students in higher grades. The third limitation of the study is that all information was collected from the adolescents themselves – that is, self-reported measurement questionnaires were used. Adolescents are more likely to answer these questions in a socially desirable manner. The inability to inquire about adolescents' sexual orientation was a fourth limitation. Indications of a wider problem in this regard can be observed in the fact that it was highly challenging to get into schools initially (and school administrations frequently refused to accept the study out of concern for parents' reactions or because the study's topic was perceived as being improper for the school). In future research, based on other research findings (e.g., Hammack et al., 2022; Kiekens & Mereish, 2022; Mezzalira et al., 2022) it would also be interesting to examine gender expression, psychological resilience, and the effect of perceived or received social support on the relationship between gender identity and loneliness. It should also be considered that factors might interact differently in various cultural and social contexts. To better understand what impact body dissatisfaction has on the relationship between adolescent gender identity and loneliness, further longitudinal studies are also needed.

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THE RELATIONSHIPS BETWEEN GENDER IDENTITY, LONELINESS, AND BODY DISSATISFACTION AMONG ADOLESCENTS

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Summary

Identity formation is an important developmental process during adolescence. The interaction between adolescents' gender identity, loneliness, and body dissatisfaction is a complex and multifaceted phenomenon. Adolescent gender identity issues are thought to be related to loneliness, and body dissatisfaction is a risk factor for greater loneliness. It can be hypothesized that adolescents experiencing gender identity issues could feel lonelier when experiencing greater body dissatisfaction. The present study aims to determine associations among adolescents' (girls and boys) gender identity, loneliness, body dissatisfaction, and fear of negative appearance evaluation, as well as to examine the possible mediating roles of body dissatisfaction and fear of negative appearance evaluation between adolescents' gender identity and loneliness, and how these phenomena differ for girls and boys.

The sample consists of 211 adolescents in the 10th grade from five secondary public schools (gymnasiums) in Vilnius, Lithuania, 54.5% of whom were girls and 45.5% boys. Participants were between the ages of 15 and 17 (M_{age} = 16.20, SD_{age} = 0.43). During the study, adolescents were asked to fill out self-reported questionnaires: gender identity was measured using the Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults (GIDYQ-AA; Deogracias et al., 2007); subjective feelings of loneliness were measured using the UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978); body dissatisfaction was measured using the Body Shape Questionnaire (BSQ; Dowson & Henderson, 2001); and the Fear of Negative Appearance Evaluation Scale (FNAES; Thomas et al., 1998; cited by Lundgren, Anderson, & Thompson, 2004) was used to measure apprehension regarding appearance evaluation.

The processing and analysis of results was achieved using the IBM SPSS v.26.0 statistical package. First, comparative and correlation analysis was performed; second, the PROCESS v.4.1 for SPSS (Model 14) was used, and moderated mediation analysis was performed.

The results of this study reveal that the gender identity of both girls and boys is negatively related to loneliness, body dissatisfaction, and fear of negative appearance evaluation. The results also show that the association between gender identity and loneliness is mediated by body dissatisfaction, and that the association between body dissatisfaction and loneliness is stronger for boys than for girls, but fear of negative appearance evaluation does not mediate the association between gender identity and loneliness. This study outlines

the need to begin to pay more attention to the experiences of boys regarding body dissatisfaction and illustrates the importance of examining adolescents' gender differences in body dissatisfaction, loneliness, and gender identity.

Given the unique challenges that adolescents with gender identity issues face regarding body acceptance, they must have access to supportive environments and mental health resources that can assist them in their self-discovery, self-acceptance, and overall well-being, e.g., by reducing loneliness given the special obstacles that adolescents encounter around body acceptance. Thus, it is especially important to create inclusive and affirming environments that recognize and validate diverse gender identities.

Keywords: *adolescents, gender identity, loneliness, body dissatisfaction, fear of negative appearance evaluation.*

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THE COMMUNICATION SKILLS OF PSYCHOLOGISTS WORKING WITH THE BIOSUGGESTIVE METHOD

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Abstract

This article examines the essential characteristics of the communicative abilities of psychologists working in the method of biosuggestive therapy (biosuggestive therapists) as a symptom complex that includes a person's ability to interact with other people, to adequately interpret the received information, as well as to transmit it correctly. The quality and level of the ability to interact with people at the level of the harmonious pole of dynamic, emotional, regulatory, motivational, cognitive, productive and reflective-evaluative characteristics of sociability, determined according to the "Judgment test for studying personality sociability (JTFSPS)" methodology of A. I. Krupnov, are shown. It is also demonstrated that the ability to adequately interpret received information is determined by the level of development of empathic abilities (according to the method of V. V. Boyko), as well as by the sensitivity of a person to the non-verbal behaviour of another and the ability to adequately identify it (according to the method of expert evaluation of non-verbal communication by A. M. Kuznetsova). It is summarized that biosuggestive psychologists can adequately interpret received information either through the ability to put themselves in their partner's place, together with the ability to adequately identify the non-verbal behaviour of communication partners, or through the

ability to understand the inner world of the interlocutor, creating an atmosphere of openness, trustworthiness, and intimacy during communication. It is shown that the ability to correctly convey information is manifested at the level of the ability to achieve mutual understanding, to influence others (according to the "Perceptual-Interactive Competence Test" method of N. P. Fetyskina), as well as the ability to manage the non-verbal repertoire (according to the method of expert assessment of non-verbal communication A. M. Kuznetsova).

It was determined in the factor analysis that the most essential characteristics that determine the communicative activity of a biosuggestive psychologist with a high level of communicative ability are: externality – the need for communication; internality – egocentricity; objectivity – non-verbal influence; and mutual recognition – categoricalness.

***Keywords**: communicative abilities, biosuggestion, verbal and non-verbal suggestion.*

1.Introduction

Recently, in connection with the experience of traumatic events by citizens of Ukraine, the number of biosuggestive practices used to improve the psychological processes of victims has increased (Strazhnyi, 2021; Voloshyn, 2018, Makarova, 2023; Marchant, 2016). The results obtained by scientists allow us to state that the introduction of biosuggestive work into the rehabilitation process effectively contributes to the significant reduction of symptoms of depression and anxiety and the level of stress, the normalization of sleep, and the improvement of the subjective perception of quality of life in people (Venger & Ivanitska, 2022; Myronenko & Puliak, 2023). There are also data that encourage the consideration of the problem of maintaining the vitality of the psychologists themselves working in the system of psychological first aid, where their communicative abilities contribute to the maintenance of a mental balance in the difficult circumstances of modern life (Strazhnyi, 2021).

In psychology, the essence and nature of the concept of abilities, the regularities of their development, the typology of abilities and the relationship between their different types have been developed. At the same time, communicative abilities are a complex hierarchical system that are on the one hand included in the general structure of human abilities (Savchyn, 2016), but on the other hand act as a separate part of the personality structure (Kalmykov, 2019; Charchenko, 2012).

There is a wide variety of theoretical and experimental approaches in the study of communicative abilities. In the works of psychologists, the correlation between the concepts of communicative abilities, communicative personality properties and communicative competence is defined (Smovzh et al., 2023).

In applied psychological research, the problems of the content and structure of communicative abilities were reflected in specific types of professional activity, and in particular in the profession of a psychologist (Petrishin, 2014; Synyshyna, 2023)

Despite a significant number of works devoted to the study of the communicative abilities of psychologists, to date there are not enough studies that would present the features and determinants of their development in psychologists engaged in suggestive techniques of influencing the personalities of patients.

All of the above made it possible to formulate **the research problem**: identifying the psychological features of the communicative abilities of a certain subset of psychologists – biosuggestive psychologists.

Hypothesis: we assume that the communicative abilities of psychologists engaged in the suggestive techniques of influencing the personality have features that are manifested in the ability of specialists to better interact with other people, more adequately interpret the received information, and more correctly transmit it.

The object of the study is the communication skills of psychologists engaged in the suggestive techniques of influencing the personality.

The subject of the study is the psychological features of the communicative abilities of psychologists and biosuggestive psychologists.

Objectives of the study:

1) to characterize the communicative features of psychologists engaged in the suggestive techniques of influencing the personality; 2) to establish the nature of relationships between the indicators of the communication abilities of these specialists; 3) to identify differences in the characteristics of the communicative abilities of psychologists with high and low levels of these abilities; and 4) to determine the most essential characteristics of the communicative activity of biosuggestion specialists with a high level of communicative abilities.

1. Theoretical and methodological principles of the research

As part of the general scientific **methodology**, we used such theoretical concepts as the system, information, subject-activity and competence approaches (Furman, 2013).

The systematic approach allowed us to single out the essential characteristics of the communicative abilities of psychologists working in the method of biosuggestive therapy. In this way, we defined the communicative abilities of psychologists engaged in the suggestive techniques of influence on the personality as a symptom complex, which includes a person's ability to interact with other people, to adequately interpret the received information, as well as to transmit it correctly.

Within the framework of the informational approach, we were aware of the importance of the substantive part of the biosuggestive session, which has an informational and psychological impact on the individual through a combination of verbal and nonverbal suggestion techniques in a light trance state.

The use of the subject-activity approach is due to the need to study the individual psychological features of communicative abilities in psychologists who are engaged in

suggestive techniques of influencing the personality. Thus, they have subject-activity conditions for the development of such features, which are manifested in the ability of specialists to better interact with other people, more adequately interpret the received information, and also more correctly transmit it.

The competence approach puts in first place the ability of a specialist psychologist to use the most effective means of constructive assistance in solving psychological problems that arise in various situations of a person's life in order to restore psychological comfort and well-being.

2. Materials and methods

Data were collected in one stage, and the collection process began in September 2022 and continued until May 2023.

The following psychodiagnostic techniques were selected for the first task of the research according to each diagnostic parameter:

- indicator – the ability to interact with other people: "Judgment test for studying personality sociability (JTFSPS)" (A. I. Krupnov); the method of diagnosing the level of empathic abilities (V. V. Boiko);
- indicator – the ability to interpret received information: diagnosis of perceptual-interactive competence (modified version of N. P. Fetiskin); the method of expert assessment of non-verbal communication (A. M. Kusnetzova);
- indicator – the ability to transmit information: "Form test – sociability" (A. I. Krupnov); the method of diagnosing communicative tolerance (V. V. Boiko).

Krupnov's test contains 140 judgments that allow for the quantitative and qualitative assessment of 12 variables of sociability, as well as 2 scales addressed to difficulties in the implementation of sociability: harmonious and aharmonic indicators of sociability.

The methodology for diagnosing the level of empathic abilities by Boiko contains 36 statements that assess the ability to empathize with and understand the thoughts and feelings of other people. The number of responses for each of the 6 scales is counted and the significance of a specific parameter in the structure of empathy is determined.

In the diagnostic method of perceptual-interactive competence (modified by Fetiskin), 31 judgments are given for assessing personal readiness for the formation of integrative criteria of interactive competence within small groups of a stable and temporary character. The number of points for each of the 6 scales is calculated, and then the total aggregate indicator of perceptual-interactive competence is formed.

The method of expert evaluation of nonverbal communication (by Kusnetzova) with the help of expert evaluations allows one to determine the range of visually reproduced and communicatively significant movements of the human body, including the assessment of the diversity of the nonverbal repertoire, sensitivity to the perception of nonverbal information, and self-management of the nonverbal repertoire.

The method of diagnosing communicative tolerance by Boiko consists of 45 questions, divided into 9 blocks, each of which reflect the characteristics of behaviour in certain communication conditions. The total score shows the level of communicative tolerance of the subject.

3. Research results

The data collected during the study were subjected to statistical processing using parametric and non-parametric methods of analysis. In particular, Spearman's correlation coefficient was used for correlation analysis and the Student's *t*-test was used to compare independent samples. Factor analysis was carried out using the method of principal components with Varimax rotation. Calculations were carried out using the IBM SPSS Statistics 21 and Microsoft Excel statistical packages.

In total, 40 respondents took part in the study (where $M = 4.1$ years regarding work experience as biosuggestive psychologists). To determine the most essential characteristics of the communicative activity of biosuggestion specialists, the results of respondents with higher and lower levels of communicative abilities from the general sample of psychologists were compared. The first group consisted of 12 respondents whose results showed high values for most indicators of communication skills. The second group consisted of 9 respondents whose diagnostic results, according to these indicators, turned out to be lower than the average values.

The results of the study showed that for the majority of psychologists who are engaged in suggestive techniques of influencing the personality, a high ability to better interact with people is manifested in the predominance of such harmonious characteristics as: an intense and persistent desire for communication, initiative and breadth of contacts (which was recorded in 18 respondents); the tendency to rely on their knowledge and capabilities during interaction (20 respondents); understanding the basic functions of sociability and its role in human life (20 respondents); and a focus of their communicative abilities on solving practical issues and acquiring new information (21 respondents).

A high level of ability to adequately interpret the information obtained was observed in most (24) respondents; 22 had developed skills to put themselves in the place of a partner or to create an atmosphere of credulity during communication; 20 had a slightly weaker ability to understand the inner world of the interlocutor; 17 could, on an intuitive level, perceive the interlocutor's emotional state; 16 could tune in to another; moderate sensitivity was observed in 26 respondents; and the ability to adequately identify the non-verbal behaviour of communication partners was evidenced in 25 respondents.

The ability to correctly convey information is embodied in the existing ability to understand the point of view of communication partners, and was observed in 30 respondents; 24 could take into account their partners' thoughts and actions; and a certain ability to arbitrarily manage their own means of non-verbal communication in accordance with

the purpose and situation of communication was seen in 19 respondents.

To study the nature of the interrelationships between indicators that characterize the communicative abilities of biosuggestive psychologists, a correlation analysis was conducted using the Spearman rank correlation coefficient.

Data on the interrelationships of indicators that characterize the ability to interact with other people (which are harmonious indicators of sociability) showed that the largest number of significant correlations was found with the indicator of sociocentricity: at the level of $p < 0.05$ it is directly related to the indicators of walledness, internality, meaningfulness and objectivity. In turn, indicators of sthenicity and objectivity correlate with the indicators of ergicity ($p < 0.05$) and internality ($p < 0.05$); however, as an indicator of meaningfulness, this does not reveal statistically significant relationships with other harmonious indicators of sociability. From these data, we can determine that most harmonious indicators of sociability form a certain correlation complex grouped around the indicator of sociocentricity. The indicators of this complex – sthenicity, objectivity and ergicity – are negatively correlated with the agarmonium indicators of sociability ($p < 0.05$).

Therefore, the ability to interact with other people is manifested to the greatest extent in an interrelated group of properties: in the desire to show concern for other people, in the desire to contribute to the solution of their problems, in experiencing a sense of joy when overcoming difficulties, in the expectation of a successful outcome of any activity, in the orientation of communicative abilities towards solving practical issues, and in a persistent desire to communicate.

Regarding the ability to adequately interpret the received information, which was studied according to the level of development of empathic abilities and sensitivity to the non-verbal behaviour of another and the adequacy of its identification, the significant relationships were as follows: positive – between indicators of the rational channel of empathy and the penetrating ability to empathize ($p < 0.01$), and between the identification of empathy and sensitivity ($p<0.01$); and negative – between indicators of the identification of empathy and its emotional channel ($p < 0.01$), and between indicators of the intuitive channel of empathy and attitudes that contribute to it ($p < 0.01$).

Since our hypothesis predicted only direct correlations between these indicators, it is only reasonable to assume that the ability to adequately interpret received information is manifested either through the ability to put oneself in one's partner's place, to adequately identify the non-verbal behaviour of partners, or through the ability to understand the inner world of the interlocutor, to create an atmosphere of openness and trust.

With regard to the ability to correctly convey information, which was studied at the level of the ability to achieve mutual understanding and to influence others as well as the ability to manage the non-verbal repertoire, they are all related to each other at a level not less than $p < 0.05$.

Next, we will consider the relationships between groups of indicators that characterize the different communicative abilities of biosuggestive psychologists (Table 1).

Table 1. The interrelationships between indicators of the communication abilities of biosuggestive psychologists

Indexes	ER	ST	SC	OB	S	MU	MNR
PA				0.438**		0.354*	
IE	0.496**	0.395*	0.391*	0.375*	0.414**	-	0.495**
S	0.416**	-	-	-	1	-	0.557**
MU	-	-	0.544**	0.524**	-	1	-
MI	-	-	0.472**	0.532**	-	0.667**	-
MNR	0.614**	-	-	-	0.557**	-	1

*Notes: ER – ergicity; ST – sthenicity; SC – sociocentricity; OB – objectivity; S – sensitivity; MU – mutual understanding; MI – mutual influence; MNR – management of non-verbal repertoire; PA – a penetrating ability to empathize; IE – identification in empathy; * – correlations are statistically significant at the $p < 0.05$ level; ** – at the level of $p < 0.01$.*

The data in Table 1 show that all of the communicative abilities of psychologists we studied are directly related to each other – namely, the ability to better interact with other people is enhanced by the ability to put oneself in one's partner's place, adequately identify their non-verbal behaviour, create an atmosphere of openness, trustworthiness, and intimacy during communication with them, which in turn allows one to better operate by means of non-verbal communication, and to achieve mutual understanding with the aim of the most effective transfer of information.

The study of the nature of the relationship between the indicators that characterize communicative abilities and the other indicators that determine the communicative characteristics of psychologists showed that all of the correlations identified with the agarmonium parameters of sociability are negative. That is, the insufficient development of communicative abilities, which is caused by anxiety, a negative assessment of one's capabilities, and so on, leads to a lack of desire to contact people, superficial judgments about sociability, the presence of certain operational obstacles in communication, and personal problems.

Thus, the majority of correlations between the indicators of communicative abilities and communicative tolerance are negative, with the exception of the positive nature of the relationship between the indicators of mutual influence and the desire to adapt one's partner to oneself ($p < 0.01$). Of particular note is the indicator of rejection or misunderstanding of the individuality of the interlocutor, which is inversely correlated with four out of ten indicators of communicative abilities (at the 5% level of significance), as well as the general indicator of communicative tolerance, which has three negative correlations with these indicators ($p < 0.01$). These data show that high communicative tolerance is generally associated with better-developed communicative abilities.

As for the indicators of social autonomy, social adaptability, social activity and the general indicator of non-verbal communication, the hypothesis of their direct connection with the communicative abilities of biosuggestive psychologists is confirmed. These data allow us to conclude that the development of the communicative abilities of psychologists

is directly related to communicative tolerance, social activity, social adaptability, social autonomy, and the ability to perform nonverbal communication, but the aharmonic characteristics of sociability are associated with insufficient communicative abilities.

In this way, it has been proven that the manifestation of the communicative abilities of psychologists who are engaged in the suggestive techniques of influencing the personality can be studied at the level of their ability to better interact with other people, more adequately interpret the information received, and also more correctly transmit it, since these abilities are interrelated are interconnected and reveal reasonable positive and negative connections with the other communicative characteristics of the individual.

For the implementation of the third task of the research, those who had the highest and lowest levels of evaluations according to the indicators of the manifestation of communicative abilities were selected from the general sample of psychologists. The first group consisted of 12 respondents whose results showed high values for most of the above-mentioned indicators of communication skills. The second group consisted of 19 respondents whose diagnostic results, according to these indicators, turned out to be lower than the average values.

We then considered the differences in the expressiveness of indicators of communicative abilities in these groups (Fig. 1).

The data presented in Figure 1 (a) show that according to the average values of most of the indicators that characterize the harmonious indicators of sociability, the group of respondents with a high manifestation of communicative abilities demonstrates scores that exceed similar values in the group of respondents with a low manifestation of them. However, reliability scores according to the Student's *t*-test revealed that the difference is statistically significant at the level of $p < 0.01$ only for the indicators of ergicity, sthenicity, sociocentricity, meaningfulness, and objectivity. According to the aharmonic indicators of sociability (Figure 1 (b)), the average values for most indicators in the subjects with a low manifestation of communicative abilities are higher than in the group with a high manifestation of them, and this difference is statistically significant at the $p < 0.01$ level for the indicators of aergicness, awareness, personal difficulties, and at the level of $p < 0.05$ for the subjectivity indicator.

Comparing the average data on the indicators characterizing empathic abilities in the groups of respondents (Figure 1(c)), first of all, we note that the tendency toward the predominance of expressiveness in the group with a high manifestation of these abilities is marked by the indicators of rational and intuitive channels of empathy, the instructions that contribute to it, penetrating ability, and identification in empathy.

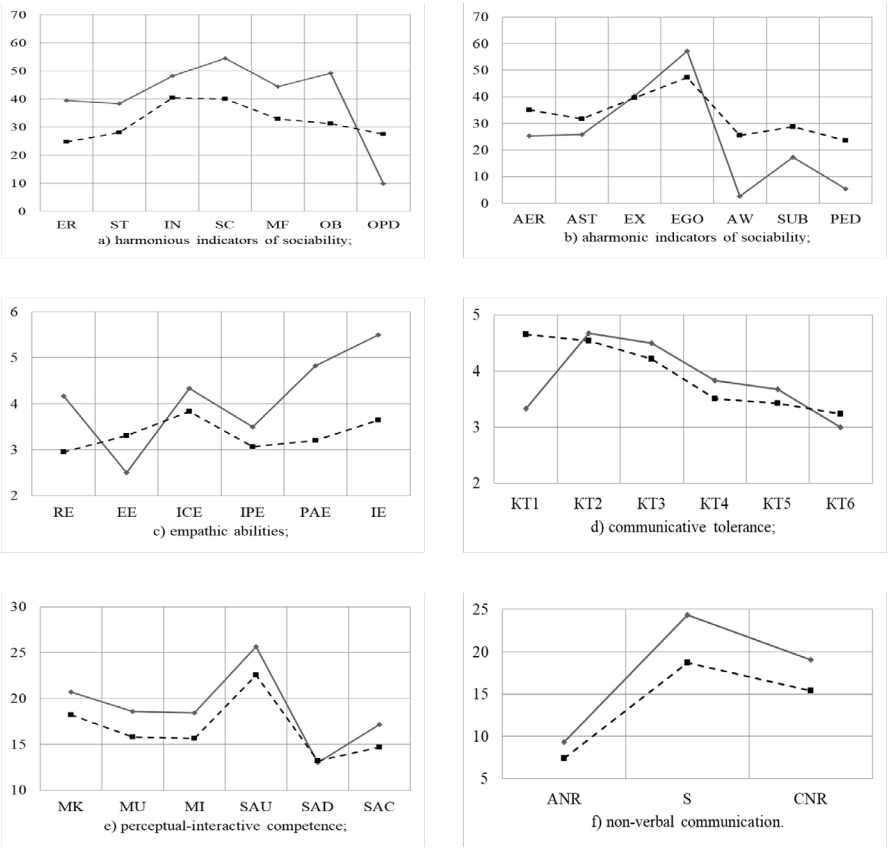

Figure 1. Average values of indicators characterizing communicative features in groups of psychologists with high and low communication abilities.

Notes: The following symbols and abbreviations are used in the figure and in the following text:

1. ER – ergicity, ST – sthenicity, IN – internality, SC – sociocentricity, MF – meaningfulness, OB – objectivity, OPD – operational difficulties, AER – aergicity, AST – asthenicity, EX – externality, EGO – egocentricity, AW – awareness, SUB – subjectivity, PED – personal difficulties, RE – rational channel of empathy, EE – emotional channel of empathy, ICE – intuitive channel of empathy, IPE – instructions that promote empathy, PAE – penetrating the ability to empathize, IE – identification in empathy, KT1 – rejection or misunderstanding of individuality, KT2 – using oneself as a standard in evaluating people, KT3 – categorical or conservative in evaluating people, KT4 – inability to hide or moderate unpleasant feelings, KT5 – desire to process, to re-educate a partner, KT6 – the desire to adapt to oneself, MK – mutual knowledge, MU – mutual understanding, MI – mutual influence, SAU – social autonomy, SAD – social adaptability, SAC – social activity, ANR – assessment of non-verbal repertoire, S – sensitivity, CNR – control non-verbal repertoire.

2. Groups of respondents:

with high manifestation; with low manifestation.

However, a statistical test using the *t*-criterion showed that the differences were significant at the level of $p < 0.01$ only in terms of the indicator of identification in empathy, and also at the level of $p < 0.05$ in the indicators of the rational channel of empathy and instructions that contribute to it.

With regard to indicators of communicative tolerance (Figure 1(d)), the compared groups hardly differ in their severity. An exception is the indicator of the rejection or misunderstanding of individuality, the average value of which in the group of respondents with a low manifestation of communicative abilities is significantly higher than in respondents with a high manifestation of them ($p < 0.05$).

Turning to the average data for indicators of perceptual-interactive competence in these groups (Figure 1(e)), we note that they are higher in most indicators in the group of respondents with high manifestations of communicative abilities. However, the statistical test showed that such an excess acquires statistically significant values only for the indicators of mutual understanding ($p < 0.05$), mutual influence ($p < 0.05$) and social activity ($p < 0.05$). These data allow us to determine that biosuggestive psychologists with high communicative abilities are distinguished by a higher ability to influence the interlocutor's thoughts and greater social activity than their colleagues with low communicative abilities.

Regarding indicators of non-verbal communication (Figure 1(f)), the average expression of all relevant indicators is significantly higher in the group with high manifestations of communicative abilities, and this excess is confirmed by the Student's *t*-test ($p < 0.01$). Therefore, these psychologists are better able to use a diverse, harmonious and differentiated repertoire of non-verbal communication tools, are able to adequately identify the non-verbal behaviour of communication partners, arbitrarily control their own non-verbal communication tools, and have a better overall level of non-verbal communication than psychologists with a low level of non-verbal communication.

According to the logic of the research, the last step was to conduct a factor analysis in order to find the communicative characteristics that are most significantly manifested in the communicative activity of biosuggestive psychologists and demonstrate high communicative abilities. According to the results of the factor analysis, we obtained a structure consisting of four factors, which together explain 86.1% of the total variance of the characteristics under study (Table 2).

Table 2. Results of factor analysis in the group of respondents with high communication skills

Externality – the need for communication (32 %)		Internality – self-centeredness (19.7%)		Subjectivity – non-verbal influence (18.9%)		Mutual recognition – categoricalness (15.5%)	
+	-	+	-	+	-	+	-
EX (0.959)	OPD (-0.928)	IN (0.953)	EGO (-0.918)	OB (0.967)	CNR (-0.855)	MK (0.886)	KT3 (-0.855)
AER (0.954)	PED (-0.771)	PAE (0.884)	KT2 (-0.793)	MI (0.884)	S (-0.748)	AW (0.636)	SC (-0.798)
AST (0.935)	RE (-0.681)	SUB (0.723)	IPE (-0.703)	SAD (0.835)	GINVC (-0.741)	MU (0.607)	ST (-0.657)
KT5 (0.896)	ER (-0.618)	SAU (0.579)		ICE (0.81)			
CT (0.895)							
IE (0.888)							
MF (0.886)							
KT6 (0.794)							

Note: Rotation method – Varimax with Kaiser normalization (5 iterations).

As can be seen in Table 2, the first factor – "Externality – the need for communication" (32%) – includes indicators that demonstrate that when there is a belief in the futility of making any efforts to establish acquaintances and maintain contacts between people, the aharmonic characteristics of sociability increase, which are accompanied by a decrease in communicative tolerance.

Conversely, even in the presence of certain difficulties, the expressed need for communication and the ability to understand the inner world of the interlocutor contributes to a high level of communication skills.

The content of the second factor – "Internality – self-centeredness" (19.7%) – indicates that psychologists with a high manifestation of communicative abilities achieve effectiveness due to their tendency to rely on their knowledge, strengths and opportunities in interpersonal communication along with the ability to create an atmosphere of openness, trustworthiness, and intimacy during communication. In turn, concentration on satisfaction at the expense of only communicating one's own needs, focusing on oneself as a standard

and the appropriate setting in the process of communication hinder the effectiveness of the communicative activity of biosuggestive psychologists.

The third factor – "Subjectivity – non-verbal influence" (18.9%) – explains that the combination of the focus of communicative abilities on solving practical issues of professional activity, the importance of the personal position in its organization, high adaptability and the tendency to rely on intuition contribute to the effectiveness of communicative activity, even under the conditions of poorly developed skills to manage non-verbal means of communication.

The content of the fourth factor – "Mutual recognition – categoricalness" (15.5%) – includes indicators that indicate that with a superficial understanding of the essence and functions of communication, psychologists in communicative activity rely on mutual recognition and mutual understanding, and vice versa: with pronounced categoricalness in people's assessments, they tend to rely on one's own altruism and optimism.

Conclusions

The results of this research supplement the insufficient number of works devoted to the study of the currently relevant aspect of the work of psychologists who have mastered the method of biosuggestion. The methods of measuring the communication abilities of biosuggestive psychologists can be used to improve the process of preparation for the professional activity of those seeking education in psychology, since they reveal the peculiarities and determinants of their development in psychologists who are engaged in suggestive techniques of influence on the personality. It is urgent to understand that biosuggestive psychologists with experience develop the ability to better interact with people due to a persistent desire to communicate, initiative and their breadth of contacts. These specialists have a tendency to rely on their knowledge, strength and ability, and understanding of the basic functions of sociability. They differ in the focus of their communication skills on solving practical issues in various types of activities. The ability to adequately interpret information is provided by their ability to put themselves in their partner's place, to create an atmosphere of openness, trustworthiness, sincerity, and their somewhat weaker ability to understand the interlocutor's inner world and intuitively perceive their emotional state. The ability to correctly convey information is realized thanks to sufficiently developed skills that enable them to understand the point of view of their partners, take into account their opinions, and arbitrarily manage their own means of non-verbal communication in accordance with the goal and situation.

What is important for practical activity is what was established in the correlation analysis; namely, that the communication abilities of psychologists are directly related to each other. Therefore, improving the ability to interact strengthens the ability to understand, interpret and transfer information.

It was established in the factor analysis that four factors are the most important

characteristics that determine the communicative activity of biosuggestive psychologists with a high level of communicative abilities: externality – the need for communication, internality – egocentricity, objectivity – non-verbal influence, and mutual recognition – categoricalness.

Ethics approval and informed consent

Informed consent was obtained from each participant.

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THE COMMUNICATION SKILLS OF PSYCHOLOGISTS WORKING IN THE BIOSUGGESTIVE METHOD

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Summary

Recently, in connection with the experience of traumatic events by the citizens of Ukraine, the use of biosuggestive practice to improve the psychological processes of affected persons has increased. Biosuggestion is now officially allowed and recommended as a form of rehabilitative work among the other intervention procedures of modern psychologists. We considered the essential characteristics of the communicative abilities of biosuggestive psychologists working in the method of biosuggestive therapy (biosuggestive therapists) as a symptom complex that includes a person's ability to interact with other people, to adequatly interpret the received information, as well as to transmit it correctly.

In total, 40 participants took part in this study (where M = 4.1 years regarding work experience as biosuggestive psychologists). To determine the most essential characteristics of the communicative activity of biosuggestion specialists, the results of participants with higher and lower levels of communicative abilities from the general sample of psychologists were compared. The first group consisted of 12 psychologists whose results showed high values for most indicators of communication skills. The second group consisted of 9 psychologists whose diagnostic results turned out to be lower than the average values according to these indicators.

The quality and level of the ability to interact with people at the level of the harmonious pole of dynamic, emotional, regulatory, motivational, cognitive, productive and reflective-evaluative characteristics of sociability, determined according to the "Judgment test for studying personality sociability (JTFSPS)" methodology by A. I. Krupnov, are shown. It is also demonstrated that the ability to adequately interpret received information is determined by the level of development of empathic abilities (according to the method of V. V. Boyko), as well as by the sensitivity of a person to the non-verbal behaviour of others and their ability to adequately identify it (according to the method of expert evaluation of non-verbal communication created by A. M. Kuznetsova). It is summarized that biosuggestive psychologists can adequately interpret received information either through the ability to put themselves in their partner's place together with the ability to adequately identify the non-verbal behaviour of communication partners, or through their ability to understand the inner world of the interlocutor, creating an atmosphere of openness, trustworthiness, and intimacy during communication with them. It is shown that the ability to correctly convey information is manifested at the level of the ability to achieve mutual understanding, to influence others (according to the "Perceptual-Interactive Competence Test" method of N. P. Fetyskina), as well as the ability to

manage the non-verbal repertoire (according to the method of expert assessment of non-verbal communication A. M. Kuznetsova).

It was established in the factor analysis that the most essential characteristics that determine the communicative activity of a biosuggestive psychologists with a high level of communicative abilities are: externality – the need for communication, internality – egocentricity, objectivity – non-verbal influence, and mutual recognition – categoricalness.

Keywords: *communicative abilities, biosuggestion, verbal and non-verbal suggestion.*

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