This study focuses on the ethical basis of adolescents’ health choices and introduces a new scale to measure adolescents’ conceptions of their health choices related rights, duties and responsibilities. The results illustrate the focus and multifaceted context of the ethical basis of adolescents’ health choices. However, the phenomenon needs further attention from research and health promotion activities in order to promote adolescents’ health.
Ethical basis of adolescents’ health choices: focus on rights, duties and responsibilities
TANJA MOILANEN

Ethical basis of adolescents’ health choices: focus on rights, duties and responsibilities

To be presented by permission of the Faculty of Health Sciences, University of Eastern Finland for public examination in Medistudia, Auditorium MS302, Kuopio, on Friday, 23th 2018, at 12 noon

Publications of the University of Eastern Finland
Dissertations in Health Sciences
Number 490

Department of Nursing Science, Faculty of Health Sciences,
University of Eastern Finland
Kuopio
2018
Grano Oy
Jyväskylä, 2018

Series Editors:
Professor Tomi Laitinen, M.D., Ph.D.
Institute of Clinical Medicine, Clinical Physiology and Nuclear Medicine
Faculty of Health Sciences

Associate Professor Tarja Kvist, Ph.D.
Department of Nursing Science
Faculty of Health Sciences

Professor Kai Kaarniranta, M.D., Ph.D.
Institute of Clinical Medicine, Ophthalmology
Faculty of Health Sciences

Associate Professor (Tenure Track) Tarja Malm, Ph.D.
A.I. Virtanen Institute for Molecular Sciences
Faculty of Health Sciences

Lecturer Veli-Pekka Ranta, Ph.D. (pharmacy)
School of Pharmacy
Faculty of Health Sciences

Distributor:
University of Eastern Finland
Kuopio Campus Library
P.O.Box 1627
FI-70211 Kuopio, Finland
http://www.uef.fi/kirjasto

ISBN (print): 978-952-61-2933-4
ISSN (print): 1798-5706
ISSN (pdf): 1798-5714
ISSN-L: 1798-5706
Author’s address: Department of Nursing Science
University of Eastern Finland
KUOPIO
FINLAND

Supervisors:
Adjunct Professor, Mari Kangasniemi, Ph.D.
Department of Nursing Science
University of Eastern Finland
KUOPIO
FINLAND

Professor emerita Anna-Maija Pietilä, Ph.D.
Department of Nursing Science
University of Eastern Finland
KUOPIO
FINLAND

Reader in Public Health, Margaret Coffey, Ph.D.
School of Health Sciences
University of Salford
MANCHESTER
UNITED KINGDOM

Reviewers:
Adjunct Professor, Katja Joronen, Ph.D.
Faculty of Social Sciences
Nursing Science
University of Tampere
TAMPERE
FINLAND

Adjunct Professor, Outi Kanste, Ph.D.
Research Unit of Nursing Science and Health Management
University of Oulu
OULU
FINLAND

Opponent: Professor emeritus, Lasse Kannas, Ph.D.
Research Center for Health Promotion
Faculty of Sport and Health Sciences
University of Jyväskylä
JYVÄSKYLÄ
FINLAND
Moilanen, Tanja
Ethical basis of adolescents’ health choices: focus on rights, duties and responsibilities
University of Eastern Finland, Faculty of Health Sciences
Publications of the University of Eastern Finland. Dissertations in Health Sciences Number 490. 2018. 60 p.

ISBN (print): 978-952-61-2933-4
ISSN (print): 1798-5706
ISSN (pdf): 1798-5714
ISSN-L: 1798-5706

ABSTRACT

The purpose of this study was to explore the ethical basis of adolescents’ health choices with the focus on rights, duties and responsibilities and to develop and pre-test a scale to measure this.

This study used a mixed-method design and consisted of two sub-studies. The first sub-study concerned defining and describing the ethical basis of adolescents’ health choices and comprised three phases. The first phase was a document analysis of Finnish health policy documents (n = 54) to be examined from the point of view of society. The data was analysed using document analysis. The second phase was an integrative review of the previous scientific literature (n = 18) pertaining to the study topic and the data was analysed using qualitative content analysis. The third phase was a focus group study with semi-structured interviews of 15 and 16 year old adolescents (n = 67) concerning their lived experiences of the ethical basis of health choices. The data was collected in spring 2016 and analysed using the phenomenological hermeneutical method. In the second sub-study, the new Health, Rights, Duties and Responsibilities (HealthRDR) -scale was developed in 2017 based on knowledge gained during the first sub-study and from other literature. The content validity of the scale was evaluated by expert panel members (n = 23) and analysed using the content validity and content validity ratio and pre-testing was conducted with adolescents (n = 200) who were 15 and 16 years old. The collected data was analysed using descriptive statistics, Cronbach’s alpha correlation and item analysis.

The results indicate that adolescents consider that their health choices influence their own health and they focus on everyday choices. Health choices are an aspect of autonomy and independence for adolescents. Health choices related rights, duties and responsibilities are separate, but interlinked. Achievement and fulfilment of them is important in terms of adolescents’ health and that of others and they have implications for society as a whole. However, adolescents’ opportunities vary due to differences in the individual premises, social circumstances and societal context. In particular, parents and society play important roles in enabling and restricting adolescents’ opportunities. The developed HealthRDR-scale covers health choices related rights, duties and responsibilities with good content validity.

This study provides new knowledge about the ethical basis of health choices by illustrating the focus of and multifaceted context of adolescents’ health choices related rights, duties and responsibilities. In addition, this study presents a novel HealthRDR-scale that can be employed in future studies. However, further attention from research, healthcare and society in general, needs to be placed on the phenomenon in order to promote adolescents’ health. In addition, further development of the scale is needed.

National Library of Medicine Classification: W 50; W 85; W 85.4; W 460; WB 60; WS 462; WY 85
Medical Subject Headings: Adolescent; Choice Behaviour; Ethics; Government Publications; Health Promotion; Human Rights; Moral Obligations; Patient Rights; Personal Autonomy; Qualitative Research; Quantitative Research, Social Responsibility, Survey and Questionnaires
nuorten terveysvalintoja. Kehitetyllä
vanhemmat ja yhteiskunta voivat rajata ja
yksilöllistä lähtökohdista ja sosiaalisista ja yhteiskunnall
mahdollisuudet
nuoren ja muiden ihmisten terveydelle sekä
liittyviä oikeuksien, velvollisuuksien ja vastuun saavuttaminen ja
velvollisuudet ja vastuu ovat erillisiä, mutta
ovat osa itsemääräämisoikeutta ja itsenäisyyttä.

Kuvaileviltä sisältövaliditeetti arvioitiin
joka nimettiin
tuotettiin aiempaan

Aineisto analysoitiin f
puolustrük
Aineisto analysoitiin laadullisella sisällön analyysillä.

Kohdistui aiempaan kirjallisuuteen (n

info

toteutettiin dokumenttianalyysi
terveysvalintojen eettistä per
osatutkimu

kehitää
perustaa

Tämä

TIIVISTELMÄ

ISSN

ISSN (pdf):

ISSN (print):

ISB

ISBN (print):

Publications of the University of Eastern Finland. Dissertations in Health Sciences
Itä
Nuorten te
Moilanen, Tanja

uokitus:

-
Moilanen, Tanja

Nuorten terveysvalintojen eettinen perusta: oikeudet, velvollisuudet ja vastuu

Itä-Suomen yliopisto, terveydenliikkeen tiedekunta

Publications of the University of Eastern Finland. Dissertations in Health Sciences 490. 2018. 60 s.

ISBN (print): 978-952-61-2933-4
ISSN (print): 1798-5706
ISSN (pdf): 1798-5714
ISSN-L: 1798-5706

TIIVISTELMÄ

Tämän tutkimuksen tarkoituksena oli kuvata ja selittää nuorten terveysvalintojen eettistä perustaa, kohdistuen oikeuksiin, velvollisuuksiin ja vastuuuseen. Lisäksi tarkoituksena oli kehittää esitettyjä mittari nuorten käsityksistä terveysvalintojen eettisestä perustasta.


Luokitus: W 50; W 85; W 85,4; W 460; WB 60; WS 462; WY 85

Yleinen Suomalainen asiasanasto: asiakirja; autonomia; etiikka; haastattelututkimus; kyselytutkimus; nuoret; oikeudet; terveyden edistäminen; terveyskäyttäytyminen; valinta; vastuu; velvollisuudet
Above all, my deepest gratitude goes to my principal supervisor, Adjunct Professor Arja Korhonen, the Finnish Foundation for Nursing Education and Support Network in Nursing Science and Practice (EANS). I am grateful for the conversations and valuable advice I have received from my parents. You have spoiled me with your thoughtfulness.

I want to express my warm gratitude to the people dearest to me. I am grateful for the love and support I have received from my family, even in the moments when I did not believe in myself. You have given me an opportunity to grow old with the love of my life, and I am planning to grow old with you. You have made this study possible.

This study was financially supported by the Finnish Doctoral Foundation of Niilo Ronka, the Finnish Foundation of Marja Terttu Voutilainen and Helander, the Finnish Foundation for Nursing Education, the European Academy of Nursing Science and the Olvi Foundation, that have been irreplaceable.

I owe my gratitude to all the schools that contributed their valuable time for this study. I am grateful for the conversations I have had with Adjunct Professor Anna Kangasniemi. Your expertise, feedback, and constructive criticism have been invaluable for my work.

I owe my gratitude to all my previous supervisors, including Adjunct Professor Outi Kanste, for reviewing my dissertation. Thank you for your valuable guidance and feedback throughout this process. You have spoiled me with endless discussions during this process and your enthusiasm and warm encouragement have been essential.

I am deeply grateful for the support I received. I would particularly like to express my special gratitude to my co-examiners, Adjunct Professor Katja Joronen and Professor Annette Margaret Coffey. I am privileged to have you as my peers.

My gratitude goes to my principal supervisor, Adjunct Professor Sanna Sinikallio for the expertise and advice you shared with me. You have improved the quality of the dissertation, which helped me to complete the writing process.

I am planning to grow old with the support I received. I would particularly like to thank Adjunct Professor Anna Kangasniemi for the support I have received from her.

I owe my gratitude to all the colleagues who have contributed their valuable time for this study. I am grateful for the conversations and discussions during this process and your contribution has been irreplaceable.

I am planning to grow old with the support I received. I would particularly like to thank Adjunct Professor Anna Kangasniemi for the support I have received from her.
Acknowledgements

This study was carried out at the Department of Nursing Science at the University of Eastern Finland. This thesis has grown out of the efforts and support received from several people and sources. I am humbled and grateful for all of you who made this study possible.

Above all, my deepest gratitude goes to my principal supervisor, Adjunct Professor Mari Kangasniemi. Your expertise, guidance and mentoring, constructive criticism and endless support have been invaluable during this process. You have given me an opportunity to make my own discoveries while always being there for me. I would like to express my heartfelt gratitude to my supervisor Professor Anna-Maija Pietilä. I have appreciated our discussions during this process and your enthusiasm and warm encouragement have been incessant. My gratitude also goes to my supervisor Reader in Public Health Margaret Coffey for your valuable guidance and feedback throughout this process. You have spoiled me with your thoughtfulness. All my supervisors deserve to be acknowledged for their share in this process; your contributions to this thesis have been essential. I am privileged to have you as my supervisors. Without you, this study or I would not be what we are today.

I owe my sincerest gratitude to the pre-examiners, Adjunct Professor Katja Joronen and Adjunct Professor Outi Kanste, for reviewing my dissertation. Thank you for the discussions and valuable suggestions, which helped me to improve the quality of the dissertation.

I want to express my warm gratitude to the specialists who have contributed in this study. I would particularly like to thank Adjunct Professor Sanna Sinikallio for the expertise and advice you shared with me on adolescents’ psychology and development and in co-writing one of the original publications. I also want to thank Adjunct Professor Ari Voutilainen and University statistician Matti Estola for the guidance during the scale development process. Further, I owe my gratitude to Information specialist Maarit Putous for your valuable help and guidance in several literature searches. I am grateful for Annette Whibley for the hours of work you have used to improve the language of the original publications. I want to thank my fellow PhD students in different phases of my studies at UEF, the Finnish Doctoral Education Network in Nursing Science and the European Academy of Nursing Science (EANS). I am grateful for the conversations we have had and your peer support during this process. I want to also express my special gratitude to our Involvement-research group. It has been a great pleasure to be part of this group.

I owe my gratitude to all the schools that contributed their valuable time for this study. I am also grateful for the collaboration with the social- and healthcare services. I also wish to express my sincere and humble gratitude to all the participants of this study.

This study was financially supported by the Olvi Foundation, the Foundation of Niilo Helander, the Finnish Foundation for Nursing Education and the Foundation of Marja-Terttu Korhonen. I am deeply grateful for the support I received.

My warmest gratitude goes to the people dearest to me. I am grateful for the love and support I have received from my parents. You taught me that everything is achievable if I am willing to work for it. I also want to thank my siblings and their families and friends. I particularly want to thank Sanna, Heli and Heli for walking beside me. You have brought me support and joy, that have been irreplaceable. I owe my deepest and most sincere thanks to my family. Vilma and Inka, thank you for your understanding love and patience throughout this journey. You bring so much light in my life. I am so proud of you. Teemu, the love of my life, thank you for your support, understanding and the trust you have had in me, even in the moments when I did not believe in myself. I am planning to grow old with you.

Kuopio, October 2018
Tanja Moilanen
This dissertation is based on the following original publications:


IV. Moilanen, T, Pietilä A-M, Coffey M, and Kangasniemi M. Developing and pre-testing a scale to measure adolescents’ health choices related rights, duties and responsibilities. Submitted.

The publications were adapted with the permission of the copyright owners.
List of the original publications

This dissertation is based on the following original publications:


IV  Moilanen, T, Pietilä A-M, Coffey M and Kangasniemi M. Developing and pre-testing a scale to measure adolescents’ health choices related rights, duties and responsibilities. Submitted.

The publications were adapted with the permission of the copyright owners.
## Contents

1 INTRODUCTION 1

2 THEORETICAL BACKGROUND OF THE STUDY 3

2.1 Adolescents’ health choices .............................................................. 3
   2.1.1 Definition of health choices and related concepts .................. 3
   2.1.2 Adolescence as a phase of life for choices ......................... 4
   2.1.3 Adolescents’ opportunities to make choices in social contexts ... 7

2.2 Ethical basis of health choices ...................................................... 10
   2.2.1 Autonomy with respect to independent choices .................... 10
   2.2.2 Rights, duties and responsibilities ........................................ 11

2.3 Summary of the theoretical background ....................................... 13

3 AIMS OF THE STUDY 16

4 METHODS 17

4.1 Study design .................................................................................. 17

4.2 Document analysis for the health policy ....................................... 18

4.3 An integrative review of previous studies ..................................... 19

4.4 Focus groups with semi-structured interviews ............................ 20

4.5 Scale development and pretesting ............................................... 21

5 RESULTS 24

5.1 Individual health choices and responsibility in health policy ......... 24

5.2 Ethical basis of adolescents’ health choices in previous studies ....... 25

5.3 Adolescents’ lived experiences of health choices related rights,
   duties and responsibilities ............................................................. 26

5.4 HealthRDR-scale .......................................................................... 27

5.5 Summary of the results ................................................................. 29

6 DISCUSSION 33

6.1 Discussion of the study results ..................................................... 33

6.2 Validity and reliability of the study ............................................. 38

6.3 Ethical considerations ................................................................... 41

7 CONCLUSION 43

8 REFERENCES 45

ORIGINAL PUBLICATIONS

APPENDICES
Abbreviations

WHO World Health Organization
SES Socioeconomic status
STM Sosiaali- ja terveysministeriö [Ministry of Social Affairs and Health]
HealthRDR Health, Rights, Duties and Responsibilities -scale
CVI Content validity index
CVR Content validity ratio
I-CVI Content validity index on an item level
I-CVR Content validity ratio on an item level
S-CVI/ave Average content validity index on a scale level
S-CVR/ave Average content validity ratio on a scale level
Adolescents’ rights have also been recognized as unequal and the Convention of UNESCO, 2009) corresponding duties and responsibilities have been overlooked. In this study ethical basis refers to rights, duties and responsibilities. Adolescents´ rights and health choices are critical, because they can build up but also jeopardize current and future health and health choices are one of several threats to adolescents´ health. There is a need to understand that individual rights and freedom are overemphasized and unheeded duties and responsibilities can be unacknowledged. There is a need to understand that individual rights and freedom are overemphasized and unheeded duties and responsibilities can be unacknowledged.

Differences between adolescents´ health and development have long lasting influences and in Finland and in Europe health choices are critical. Health promotion aims to remove barriers that hamper the individual health choices and to strengthen health promotion activities. There is a need to understand that individual rights and freedom are overemphasized and unheeded duties and responsibilities can be unacknowledged. Adolescents are an important phase of life, during which the foundations of health are laid as a result of making capacities and decisions. Adolescents are generally healthier than previous generations and in Finland shows continuous improvement. Differences in health choices are concerning. Adolescents are an important phase of life, during which the foundations of health are laid as a result of making capacities and decisions. Adolescents are generally healthier than previous generations and in Finland shows continuous improvement. Differences in health choices are concerning.

Adolescents´ health choices have long lasting influences on themselves and their health in adulthood. Differences in health choices are critical, because they can build up but also jeopardize current and future health. Adolescents are an important phase of life, during which the foundations of health are laid as a result of making capacities and decisions. Adolescents are generally healthier than previous generations and in Finland shows continuous improvement. Differences in health choices are concerning. Adolescents are an important phase of life, during which the foundations of health are laid as a result of making capacities and decisions. Adolescents are generally healthier than previous generations and in Finland shows continuous improvement. Differences in health choices are concerning.

Adolescents are an important phase of life, during which the foundations of health are laid as a result of making capacities and decisions. Adolescents are generally healthier than previous generations and in Finland shows continuous improvement. Differences in health choices are concerning. Adolescents are an important phase of life, during which the foundations of health are laid as a result of making capacities and decisions. Adolescents are generally healthier than previous generations and in Finland shows continuous improvement. Differences in health choices are concerning.
1 Introduction

Adolescence is an important phase of life, during which the foundations of health are laid as a result of individual health choices. Adolescents’ everyday choices are one of several factors that determine their health. (Ioannou, 2003; Paternoster and Pogarsky, 2009; Ridder et al., 2010; Spencer, 2013; World Health Organization WHO, 2014a, 2017b). Such health choices are critical, because they can build up but also jeopardize current and future health and the consequences of those choices can have long lasting influences (WHO, 2017a; WHO, 2014b).

Adolescents are a special age group: they are expected to make healthy choices, follow health promotion guidelines and develop as independent choice makers. At the same time, they are labelled as reckless and only interested of their individual rights. However, adolescents are generally healthier than previous generations (Unicef, 2011) and their health in Europe (WHO, 2014b) and in Finland (Luopa et al., 2010) shows continuous improvement (WHO, 2017a; WHO, 2014b). Differences between adolescents’ health (Doku, Koivusilta, Raisamo, et al., 2010; WHO, 2014b; Patton et al., 2012; Rathmann et al., 2015; Elgar et al., 2015) and health choices (Doku, Koivusilta, Rainio, et al., 2010; Luopa et al., 2010; Liu et al., 2018) are concerning. Differences in Finnish adolescents’ health choices have also been identified and during recent decades they have persisted (Doku, Koivusilta, Rainio, et al., 2010; Elgar et al., 2015; Liu et al., 2018) and even increased within some groups (Doku, Koivusilta, Rainio, et al., 2010; Elgar et al., 2015).

Encouraging adolescents to make sound health choices can produce immediate benefits (WHO, 2017b; WHO, 2014a) and is critical in the preventing health problems in adulthood (WHO, 2017b; WHO, 2014a; Kelly et al., 2011). Health promotion aims to remove barriers that hinder adolescents’ opportunities to make healthy choices (Green & Tones, 2010; WHO, 1986) and thus also reduce differences with respect to such opportunities. There is a lot of knowledge available about adolescents’ health, providing possibilities to strengthen health promotion activities (e.g. Oellingrath, Hersleth and Svendsen, 2012; Correa-Burrows and Burrows, 2014; Kilanowski, 2014; WHO, 2014a, 2017b; Chandler et al., 2015; Bryan et al., 2016; Couch et al., 2017). However, health promotion is value based (Buchanan, 2000), so the unheeded ethical basis of health choices should be acknowledged. In this study ethical basis refers to rights, duties and responsibilities.

Discourse about the ethical basis of health choices is not new. Individual rights have been highlighted since the 20th century (Carnevale & Manjavidze, 2016; Jones & Welch, 2010), with several initiatives to protect them (United Nations, 1965; United Nations, 1966a; United Nations, 1966b; United Nations, 1979; United Nations, 1984; United Nations, 1990b; United Nations, 2006; UNESCO, 2009), including the Universal Declaration of Human Rights (United Nations, 1948) and the Convention of Child Rights (United Nations, 1990a). Adolescents’ rights and health promotion have been highlighted internationally by the WHO and the European Union. They have emphasized a rights-based approach (WHO, 2014b) and agreed to promote and protect all the rights of all adolescents (EU, 2007).

Adolescents’ rights have however been questioned because of their vulnerability and choice-making capacities (Archard, 2016). Adolescents’ rights have also been recognized as unequal compared to other age groups (Purcell, 2010; Archard, 2016). In general discussions, claims have been made that individual rights and freedom are overemphasized (Passini, 2011), while the corresponding duties and responsibilities have been overlooked (Evans, 2007; Kangasniemi et al., 2012). Unheeded duties and responsibilities can be a threat to adolescents’ health (Evans, 2007)

---

1 World Health Organization (WHO) defines adolescents as young people aged 10 to 19 (WHO, 2017a; WHO, 2016).

2 Health is considered as holistic combination of physical, emotional and social wellbeing (WHO, 2018b; WHO, 1948; Bircher, 2005) that is dynamic (Bircher, 2005), subjective and relative (Blaxter, 2010; Amzat & Razum, 2014).
and diminish their opportunities to function as active participants in their own healthcare (Passini, 2011).

The ethical basis of health choices is not only an individual issue, it is an essential part of a functioning society (Civaner & Arda, 2008; Cappelen & Norheim, 2006; Michailakis & Schirmer, 2010; Snelling, 2012; Rawls, 1999; Beauchamp & Childress, 2012). One topical and complex question in healthcare and societies is, whether individuals can make rights-based choices with no limits and expect society to deal with the consequences. Indeed, what duties and responsibilities do individuals have for their own healthcare (Evans, 2007; Michailakis and Schirmer, 2010; Bringedal and Feiring, 2011; Ahola-Launonen, 2015)? Limitations to adolescents’ rights, duties and responsibilities is an even more multifaceted issue, determined by age (Hashmi, 2013; Steinberg, 2005; Ridder et al., 2010; Kelly et al., 2011) and the right to be protected, together with the right to develop independence and make their own choices (United Nations, 1990a).

Nevertheless, there is limited amount of knowledge available about the ethical basis of health choices and only a few studies focusing on the adolescents’ point of view. In addition, there is a need for clarification of health choices related rights, duties and responsibilities (Hirjaba et al., 2015; Kangasniemi et al., 2012; Passini, 2011; Snelling, 2012). Therefore, we need more knowledge in order to understand the topic in depth (Hirjaba et al., 2015; Kangasniemi et al., 2012) and in order to conduct broader empirical studies, there is a need for a tested scale (Hirjaba et al., 2015). In addition, it is important to recognize adolescents as a separate group, who differ from children and adults (WHO, 2018a). Thus, purpose of this study was to explore the ethical basis of adolescents’ health choices with a focus on rights, duties and responsibilities and to develop and pre-test a scale to measure this.
2 Theoretical background of the study

This chapter builds on previous scientific knowledge, legislation and national and international steering documents concerning the ethical basis of adolescents’ health choices. The information was obtained through ongoing searches carried out during research process. In addition, systematic searches focusing on previous scientific knowledge on adolescents’ health choices were conducted in the CINAHL, PubMed, Web of Science and Scopus databases. A combination of MeSH terms and free key words were used (Table 1). The search limitations were that the article had to be published in a peer reviewed scientific journal, in English and between 2013 and 2018, to include the latest studies, to identify current issues in adolescents’ health choices in a rapidly changing social context. From 4012 searches, 179 original articles were selected based on their title, 39 on their abstract and 15 on their full text. Duplicates were removed at the phase of full text examination. A total of 15 original papers were selected, according to the inclusion and exclusion criteria. Original articles were included if the focus was on 10 to 19 year old healthy adolescents and their health choices. The exclusion criteria were that the original study focused on children, adults, sexual behaviour or vaccines or the paper was theoretical or a review of other studies. The quality of the selected original articles was evaluated, but only used to describe the studies and not as an exclusion criterion (Appendix table 1).

<table>
<thead>
<tr>
<th>Search terms</th>
<th>Database</th>
<th>Items found</th>
<th>Included by title</th>
<th>Included by abstract</th>
<th>Included in the review</th>
</tr>
</thead>
<tbody>
<tr>
<td>(adolescen [MeSH]* OR teen* OR youth* OR young*) AND health* AND (“health choice” OR choice* OR decision* OR “decision making [MeSH]”) AND (lifestyle [MeSH]* OR “well-being” OR wellbeing* OR “health habit” OR “health behaviour [MeSH]” OR “health behaviour [MeSH]”))</td>
<td>CINAHL</td>
<td>n = 359</td>
<td>n = 5</td>
<td>n = 2</td>
<td>n = 2</td>
</tr>
<tr>
<td></td>
<td>PubMed</td>
<td>n = 1010</td>
<td>n = 123</td>
<td>n = 19</td>
<td>n = 5</td>
</tr>
<tr>
<td></td>
<td>Scopus</td>
<td>n = 1956</td>
<td>n = 31</td>
<td>n = 12</td>
<td>n = 5</td>
</tr>
<tr>
<td></td>
<td>Web of Science</td>
<td>n = 687</td>
<td>n = 20</td>
<td>n = 6</td>
<td>n = 3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>n = 4012</td>
<td>n = 179</td>
<td>n = 39</td>
<td>n = 15</td>
</tr>
</tbody>
</table>

2.1 ADOLESCENTS’ HEALTH CHOICES

2.1.1 Definition of health choices and related concepts

Health choices refer to health related actions and the right of an individual to make their own decisions (Rawls, 1999; Buchanan, 2000; Beauchamp & Childress, 2012; Nordström et al., 2013), together with their corresponding duties and responsibility over their own choice-making (Draper & Sorell, 2002; Passini, 2011; Nordström et al., 2013). Health choices have also been regarded as an expression of freedom and autonomy (Barnett et al., 2008; Porter, 2014). Thus, focusing on health choices positions adolescents as active agents who have the opportunity to participate and influence their own health (Barnett et al., 2008; Paternoster & Pogarsky, 2009; Ivanitskii, 2016).

Health choices have been described as conscious (Ioannou, 2003; Spencer, 2013) or unconscious decisions (Paternoster & Pogarsky, 2009) that can influence health (Atkins et al., 2010; Ridder et al., 2010; Olsen, 2000; Cappelen & Norheim, 2005; Cappelen & Norheim, 2006), health related risks, risks of getting ill (Cappelen & Norheim, 2006; Cappelen & Norheim, 2005; Olsen, 2000).
and the need for care in the future (Cappelen & Norheim, 2006; Cappelen & Norheim, 2005). However, health choices can also influence other peoples’ health and wellbeing (Jacobson & Melnyk, 2011; Kelly et al., 2011; Stead et al., 2011). For example, an individual’s decision to smoke can have implications for the health of others.

Health choices focus on nutrition (Kelly et al., 2011; Ioannou, 2003), exercise (Kelly et al., 2011; Ioannou, 2003), rest and sleep, screen time (Kelly et al., 2011) and substance use (Spencer, 2013; Ioannou, 2003). In addition, health choices are related to risky and safe behaviour (Atkins et al., 2010; Brown et al., 2013; Lee et al., 2010; Spencer, 2013; Thing & Ottesen, 2013), such as unprotected sex (Spencer, 2013) or decisions in relation to travel, such as wearing a bicycle helmet or safety belt (Kozica et al., 2012).

Health choices-related concepts include health behaviour, health habits and lifestyle (Table 2). In this study, concepts of healthy- and unhealthy choices are also used, to indicate the direction of health impacts of particular choices. Healthy choices promote individual health, whereas unhealthy choices decrease it.

### Table 2. Health choices-related concepts

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definition</th>
<th>Reference(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health behaviour</td>
<td>Intentional or unintentional actions that affect health or mortality</td>
<td>(Short &amp; Mollborn, 2015; Runions et al., 2006; Salvador-Carulla et al., 2013)</td>
</tr>
<tr>
<td></td>
<td>Healthy choices related to smoking, alcohol consumption, exercise and eating</td>
<td>(Ioannou, 2003)</td>
</tr>
<tr>
<td></td>
<td>Emphasizes psychology and behavioural sciences</td>
<td>(Cohn, 2014)</td>
</tr>
<tr>
<td>Health habit</td>
<td>Behaviour that is frequently repeated highly automatic, learned responses that are systematically repeated.</td>
<td>(Orbell &amp; Verplanken, 2010; Opalinski et al., 2018; Salvador-Carulla et al., 2013)</td>
</tr>
<tr>
<td>Lifestyle choices</td>
<td>Choices in relation to lifestyle</td>
<td>(Jacobson &amp; Melnyk, 2011; Kelly et al., 2011; Lee et al., 2010)</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>Health-related behaviour that acknowledges social and cultural factors in health issues</td>
<td>(Ioannou, 2005; Lucini et al., 2015)</td>
</tr>
<tr>
<td></td>
<td>Consists on values, attitudes and routine and behavioural patterns</td>
<td>(Stebbins, 1997; Salvador-Carulla et al., 2013)</td>
</tr>
</tbody>
</table>

#### 2.1.2 Adolescence as a phase of life for choices

An essential aspect of adolescents’ health choices relates to their perceptions of the value of health; however, adolescents appear to understand it in various ways (Spencer, 2013; Schmidt & Fröhling, 2000). Adolescents have described health as feeling well and safe and having the strength and energy to manage their everyday life (Cronhåll & Eklund, 2012; Schmidt & Fröhling, 2000), but health can also be about the ability to be happy and have fun with friends (Ridder et al., 2010; Spencer, 2013; Swanson et al., 2013). However, adolescents can view health as an issue that does not need to be considered in adolescence (Thing & Ottesen, 2013; Ioannou, 2003; Ridder et al., 2010), and may also consider health risks mainly a problem for other people (Spencer, 2013) or distant in time (Couch et al., 2017). Therefore, in their everyday choices, adolescents may value other things more than health (Ridder et al., 2010; Ree et al., 2008).

Adolescents’ health choices can either promote or threaten their health (Atkins et al., 2010; Ridder et al., 2010). Health choices made in adolescence are critical, because they build up the basis of future health (Kelly et al., 2011; Brown et al., 2013) and because of the possible long-lasting effects of these choices (Brown et al., 2013; Ridder et al., 2010). For example, healthy choices during adolescence have been linked to educational level in adulthood, so that individuals who made healthy choices in adolescence, achieved a higher educational level in...
adolescence have been linked to educational level in adulthood (Koivusilta, Nupponen and Rimpelä, 2012; Koivusilta et al., 2013). On the other hand, unhealthy choices can support adolescents’ self-perception and autonomy (Spencer, 2013; Couch et al., 2017) by increasing their sense of control over their own lives (Brown et al., 2013). However, the consequences of health choices are at least in part outside the individual’s control and the same decisions may not result in the same consequences between adolescents (Cappelen & Norheim, 2005). This can be because of different genetic and biological traits (Cappelen & Norheim, 2005; Nordström et al., 2013), environment, society or luck (Cappelen & Norheim, 2005).

*Individual premise for health choices*

Adolescents’ health choices are determined by their age phase, which is associated with biological, cognitive, social and emotional changes (Hashmi, 2013; Steinberg, 2005). This stage of life is triggered by hormones and can be a turbulent time (Hashmi, 2013). Adolescence has been categorized into three stages, early, middle and late (Hashmi, 2013; Steinberg, 2005). Early adolescence, ages 12 to 14, is the time (Hashmi, 2013) when puberty begins and emotional sensibility and sensation-seeking are highlighted (Steinberg, 2005). Middle adolescence from 14 to 17 years is a period (Hashmi, 2013) of heightened vulnerability to risky choices and regulation of emotions and behaviour (Steinberg, 2005). Late adolescence, ages 17 to 19, (Hashmi, 2013) is the time when maturation of the brain facilitates regulatory capacities (Steinberg, 2005); during this phase, adolescents’ reasoning and information processing skills improve markedly (Steinberg, 2005).

Adolescents’ capacity to make health choices relates to their stage of maturity and thought processes (Atkins et al., 2010; Crondahl & Eklund, 2012; Kelly et al., 2011; Ridder et al., 2010; Swanson et al., 2013), which are dependent on their developing brain structure and function (Steinberg, 2005; Banich et al., 2013; Hashmi, 2013). However, adolescents mature individually according to their individual biological processes (Steinberg, 2005). Their ability to think develops to allow abstract and complex considerations as well as moral deliberation (Hashmi, 2013; Vera-Estay et al., 2015), which improves adolescents’ abilities to make considered choices (Hashmi, 2013; Paternoster & Pogarsky, 2009).

The capacity to make their own choices is also based on adolescents’ knowledge, educational level (Atkins et al., 2010; Crondahl & Eklund, 2012; Schmidt et al., 2010; Lee et al., 2010; Swanson et al., 2013), logical reasoning (Keeler & Kaiser, 2010) and health literacy (Fleary et al., 2018; Paakkari et al., 2018). Health literacy refers to the capacity to acquire and understand health information (Fleary et al., 2018; Sykes et al., 2013) and it seems to improve adolescents’ health choices by providing tools to use knowledge and by enhancing their decision-making (Fleary et al., 2018). However, adolescents can consider knowledge to be something that needs only to be sought when immediately relevant and not before (Grabowski & Rasmussen, 2014).

Health choices vary in relation to individual decision-making processes and how conscientiously and thoroughly certain decisions and their potential consequences are weighted (Paternoster & Pogarsky, 2009; Northcote, 2011; Gray et al., 2017). Thus health choices can be made consciously (Spencer, 2013) or unconsciously (Paternoster & Pogarsky, 2009; Brown, 2013). Some choices are made based on serious reflection and information-gathering (Paternoster & Pogarsky, 2009), whilst others are made deliberately against acquired knowledge (Price, 2006). Therefore, adolescents can make health choices with full knowledge of potential health consequences (Spencer, 2013; Swanson et al., 2013), even if they are negative. Health choices can also be made impulsively (McCarthy et al., 2018; Goodwin et al., 2017) and can be the result of only modest cognitive work (Paternoster & Pogarsky, 2009). In addition, adolescents’ decisions can rely on habits (Paternoster & Pogarsky, 2009; Brown, 2013; Verstraeten et al., 2014). However, it is unclear why certain choices are made on the basis of deliberate reasoning and others on intuition and for other reasons (Paternoster & Pogarsky, 2009; Gray et al., 2017).
Adolescents’ health choices are associated with self-perception and factors such as feelings. Adolescents who have confidence in their own ability to live healthily make more healthy choices than those with less self-confidence (Melnyk et al., 2006). Feelings can also determine adolescents’ decisions (Northcote, 2011; Ferrer & Mendes, 2018; Bruch & Feinberg, 2017). They can feel uncertainty when making health choices, especially when choosing healthy options in social situations such as when being at the mall, fast food restaurants or after school with friends. They also express uncertainty about making healthy choices when they are alone or feeling stressed, bored or down. (Kilanowski, 2014.)

Adolescents have felt that they are unable to make healthy choices, because of lack of self-control and preferences for unhealthy options (Verstraeten et al., 2014). They have also recognized sensory triggers that promoted unhealthy choices and were difficult to ignore (Swanson et al., 2013). For example, adolescents have reported that they like unhealthy food so much that they could not resist it, although they were aware of the potential health effects (Verstraeten et al., 2014). Thus, in this example the taste of the food can be an important factor with respect to adolescents’ health choices (Verstraeten et al., 2014; Swanson et al., 2013; Brown et al., 2015).

Differences between boys and girls health choices have also been identified. Boys generally have been found to make unhealthier choices than girls (Luopa et al., 2010; THL, 2018a; Kilanowski, 2014), but girls report experiencing poorer general health than boys (Luopa et al., 2010; THL, 2018a). Boys have also been reported to engage more in risky behavior than girls. The differences between genders have been explained by social norms and customs, socioeconomic status and demographic factors. (Parvizi and Hamzehgardeshi, 2014.)

Adolescents’ health choices are connected to their opportunities and resources, for example time and money (Swanson et al., 2013; Verstraeten et al., 2014). Time can influence the quality of adolescents’ health choices, for example, lack of time can result in unhealthy choices, if adolescents have no time for food preparation (Verstraeten et al., 2014; Brown et al., 2015). Time in front of a screen has also been associated with adolescents’ unhealthy choices, with a positive correlation between screen time and the number of unhealthy choices (Borraccino et al., 2016). Use of money for health choices in adolescence is mainly dependent on parents. Adolescents tend to have experienced financial autonomy when they were not with their parents, but also receive money from them. (Verstraeten et al., 2014.) For instance, adolescents state that money has affected their opportunities to exercise (Pang et al., 2015).

**Targets of adolescents’ health choices**

Globally a considerable proportion of adolescents seem not to meet recommended physical activity levels (WHO, 2014b; WHO, 2017a; THL, 2018a), with less than one in every four adolescents reaching the recommended 60 minutes of moderate activity each day (WHO, 2017a). However, Finnish adolescents’ health choices in relation to exercising have shown improvement in recent decades (Luopa et al., 2010). Adolescents in developing countries suffer from undernourishment, which makes them vulnerable to disease and early death (WHO, 2017a). In contrast, the number of adolescents who are overweight or obese is increasing in low, middle and high-income countries (WHO, 2017a) including Finland (THL, 2018a) and Europe (WHO, 2014b).

Adolescents’ health choices with respect to alcohol consumption and drug use are important global concerns (WHO, 2017a; Unicef, 2011). In European countries adolescents from 15 years old, (25 % of boys and 17 % of girls) report drinking alcohol at least once a week (WHO, 2014b), although Finnish adolescents’ alcohol consumption has decreased since the year 2000 (Kinnunen et al., 2013; THL, 2018a; Raitasalo et al., 2018). Twenty percent of European adolescents have reportedly used some kind of illegal drug (ESPAD, 2015). Moreover, adolescents’ tobacco consumption is alarming, especially in high-income countries (WHO, 2017a) and in Europe (WHO, 2014b), although tobacco usage among Finnish adolescents seems to have decreased during the 21st century (Kinnunen et al., 2013; Luopa et al., 2010; THL, 2018a). However, Finnish
adolescents’ snuff use has increased in recent years (Kinnunen et al., 2013; Luopa et al., 2010; THL, 2018a). The main focus of adolescents’ health choices reported in the latest research have been in respect of health promotion of exercise and nutrition, such as playing certain kinds of sport in their leisure time and eating fruit and vegetables. In addition, the research has focused on the time adolescents spend in front of a screens, their hygiene practices and substance use. (Table 3)

<table>
<thead>
<tr>
<th>Focus</th>
<th>Examples</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercising</td>
<td>Playing certain kinds of sport, e.g. soccer, basketball</td>
<td>(Correa-Burrows &amp; Burrows, 2014; Wang et al., 2014; Pang et al., 2015)</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Intake of fruit and vegetables</td>
<td>Kilanowski, 2014; Bryan et al., 2016; Borraccino et al., 2016; Dwyer et al., 2017; Chandler et al., 2015; Oellingrath et al., 2012; Wang et al., 2014; Verstraeten et al., 2014; Swanson et al., 2013; Brown et al., 2015</td>
</tr>
<tr>
<td></td>
<td>Eating daily breakfast</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Making unhealthy choices, such as eating sweets, crisps, sugary drinks</td>
<td></td>
</tr>
<tr>
<td>Screen time</td>
<td>Spending time in front of a screen in relation to food choices</td>
<td>Borraccino et al., 2016; Correa-Burrows &amp; Burrows, 2014; Wang et al., 2014</td>
</tr>
<tr>
<td>Hygiene practices</td>
<td>Brushing teeth, taking a shower</td>
<td>Kilanowski, 2014</td>
</tr>
<tr>
<td>Substance use</td>
<td>Using alcohol-, drug-, tobacco products</td>
<td>Couch et al., 2017</td>
</tr>
</tbody>
</table>

2.1.3 Adolescents’ opportunities to make choices in social contexts

Adolescents’ health choices are interwoven with individual, social and societal conditions (Ioannou, 2005). This means that adolescents’ choices vary depending on whom the adolescent is with and where decisions are made. Thus, health choices are the result of agency (Ioannou, 2003) and available opportunities to make decisions (Brown et al., 2015; Swanson et al., 2013; Verstraeten et al., 2014) in relation to parents, peers and societal context.

Parents’ influence

Parents play an essential role in adolescents’ health choices: their educational level and socioeconomic status influence adolescents’ decisions (Huurre et al., 2003; Finger et al., 2015). Higher parental socioeconomic status (SES) has been associated with adolescents’ improved dietary health choices, e.g. lower energy-dense food intake and higher fruit consumption compared to adolescents with parents of lower SES (Finger et al., 2015). Similarly, higher SES has been found to be positively related to adolescents’ physical activity in their leisure time (Huurre et al., 2003) and negatively related to smoking (Huurre et al., 2003; Pedersen & Soest, 2017). This may be because of a lack of money to afford leisure activities and healthy foods or lack of support for healthy choices (Finger et al., 2015). Parents’ circumstances determine their abilities to offer support, information and opportunities to adolescents. Parents with lower SES may also experience unemployment, stress and unhealthier work environments, which can influence their abilities to support adolescents (Pedersen & Soest, 2017).

Adolescents’ health choices are determined by parents’ attitudes and the example they set, including their choices and motives relating to their child’s decisions (Oellingrath et al., 2012; Dwyer et al., 2017). These motives include how parents value health and also common cultural patterns (Oellingrath et al., 2012). Their attitudes towards substance abuse have been found to influence adolescents’ motivation to avoid such substances (Couch et al., 2017). In addition, parents’ examples have been connected to adolescents’ decisions (Verstraeten et al., 2014; Couch...
et al., 2017), with the assumption that it would be unfair to expect adolescents to make healthy choices, if parents behaved counter to this (Verstraeten et al., 2014).

Parents’ expectations and perceptions can restrict adolescents’ health choices, when parents consider other things, such as education, more valuable than health. For example, parents’ expectations can restrict adolescents’ opportunities to exercise. (Pang, MacDonald and Hay, 2015.) Adolescents can accede to parents’ expectations by making health choices that please, especially in respect of their mothers wishes (Kilanowski, 2014). On the other hand, adolescents can also follow parents’ expectations to avoid humiliation and rejection by their parents. This could result in adolescents having negative feelings such as distress and being upset, which in turn can lead to further sanctions. (Pang, MacDonald and Hay, 2015.) Adolescents have described how potential consequences from parents influence their decisions, especially in relation to unhealthy choices such as the use of substances (Couch et al., 2017). Parents restrict adolescents’ health choices especially when they are with them (Brown et al., 2015), but adolescents can disobey their parents when they are not with them (Verstraeten et al., 2014).

Parents and their parenting practices determine adolescents’ decisions; in particular, mothers’ support tends to have a positive influence on adolescents (Kilanowski, 2014). However, parenting practices vary and some parents let adolescents choose independently, for example what to eat and the amount of their screen time (Wang et al., 2014), whilst others set strict limits and define the “correct” choices (Pang et al., 2015). Parenting practices may also vary in relation to adolescents’ health choices. Parents have been found to be less permissive regarding screen time with adolescents who made more healthy choices and more permissive with adolescents who made more unhealthy decisions. (Wang et al., 2014.)

**Influence of peers**

Adolescents’ health choices are influenced by their peers (Crondahl & Eklund, 2012; Northcote, 2011; Lazzeri et al., 2014; Couch et al., 2017; Borraccino et al., 2016). During adolescence, individuals assume new social roles and are exposed to progressive social interactions that contribute also to their choice-making (Vera-Estay et al., 2015). The role of peers in adolescents’ health choices is about seeking social status and acceptance. Peers can offer encouragement and support with respect to making decisions. Social status can be built by making decisions that fit into a desired image and identity (Stead et al., 2011; Ioannou, 2003). Health choices can also be used to signal belonging to acceptable social groups (Stead et al., 2011; Northcote, 2011) or other cultural representation such as masculinity (Ioannou, 2003).

Acceptance by peers is important for adolescents and socially accepted decisions (Brown et al., 2013; Keeler & Kaiser, 2010; Thing & Ottesen, 2013) make adolescents feel good, which promotes their social and emotional health (Stead et al., 2011). Adolescents report that they consider unhealthy choices, such as junk food or tobacco use, to represent fitting in with peers (Brown et al., 2015; Couch et al., 2017). Social acceptance of substance use can motivate adolescents use of substance (Couch et al., 2017).

In addition, peers encouragement, expectations (Crondahl & Eklund, 2012) and support (Lee et al., 2010; Keeler & Kaiser, 2010) influence adolescents’ decisions. They have, for example, described that peers can encourage them to make unhealthy choices (Kilanowski, 2014; Brown et al., 2015; Couch et al., 2017) such as eating in fast food restaurants (Kilanowski, 2014) or smoking and drinking alcohol (Lazzeri et al., 2014; Couch et al., 2017). Peers can also encourage adolescents to make decisions that they are unhappy about afterwards, such as taking part in food challenges (Kilanowski, 2014).

Health choices may also be linked to social risks for adolescents because certain choices can be associated with something undesirable, untrendy or “nerdy” (Stead et al., 2011). Thus adolescents may be afraid of being mocked by their peers if they were to make healthy choices (Verstraeten et al., 2014; Pang et al., 2015; Brown et al., 2015). It can be hard for adolescents to make choices that go against common opinion within their peer groups (Swanson et al., 2013). However,
confident adolescents care less about others’ opinions (Verstraeten et al., 2014), which can enable them to make better choices.

Societal context of adolescents’ decisions
Adolescents’ health choices are of interest with respect to social- and healthcare policy because they are related to public health, public health expenses and distribution of healthcare (Cappelen & Norheim, 2005; Schirmer & Michailakis, 2011; Olsen, 2000). However, individual decisions can be seen to conflict with solidarity towards others, because scarce societal resources need to be used in treating the consequences of those choices (Schirmer & Michailakis, 2011). Thus, health choices are highlighted in social policies- and healthcare, for two reasons. First, interest can focus on how individuals have contributed to the need for care and second, what an individual will do in future, which is linked to the potential outcomes of a treatment. (Cappelen and Norheim, 2005.)

Health choices, however, are not only individual decisions, but part of social context (Northcote, 2011; Nordström et al., 2013; Bruch & Feinberg, 2017; Gray et al., 2017; Porter, 2014). Social context determines adolescents’ opportunities and options to make decisions (Bruch & Feinberg, 2017; Dai et al., 2018; Nordström et al., 2013; Risjord, 2014), including in schools and living environment. Schools have an important role in influencing adolescents’ decisions (Verstraeten et al., 2014; Brown et al., 2015), including thorough education, availability of healthy food and restrictions at school (Verstraeten et al., 2014). Adolescents’ health choices have been found to improve in schools which have applied the WHO’s Health Promoting Schools program (Furley, 2017; Langford et al., 2017). The program aims to support adolescents’ opportunities for healthy choices by influencing the entire school, including its social and physical environment, health education, school health services and engagement with families and communities (WHO, 2018d; Lee, 2004). Adolescents that have been involved in the program, have made healthier choices than before, regarding their fruit and vegetable intake, exercising and tobacco use (Furley, 2017; Langford et al., 2017) and they have felt that the program has supported them in participating in and taking control of their own health (Holmberg et al., 2018).

In addition, adolescents’ living environment affects their opportunities to make health choices (Brown et al., 2015; Pang et al., 2015). For example, the availability of suitable places for exercising can encourage adolescents to make more healthy choices (Ayres & Pontes, 2018; Pang et al., 2015). In addition, public transport determines adolescents’ opportunities to access public services and engage in leisure time activities. Overall environmental conditions also influence adolescents’ choice-making situation and health choices. Adolescents’ choices are healthier if adequate basic amenities such as clean water, nutrition, sanitation and hygiene and air quality are available. (WHO, 2014b.)

Adolescents’ health choices are influenced by cultural norms (Brown et al., 2015; Couch et al., 2017). For example, adolescents decide to use tobacco products under the influence of local customs (Couch et al., 2017). In addition, national legislation (Brown et al., 2015; Couch et al., 2017) and health promoting programs and strategies at the international, national and local levels (e.g. ENSP, 2016; THL, 2018b, 2018c; WHO, 2018e) aim to control and protect adolescents’ opportunities with respect to making healthy choices. Adolescents’ decisions are also influenced by their societal economic situation (Northcote, 2011), which determines for example the cost of healthy foods (Verstraeten et al., 2014; Swanson et al., 2013; Brown et al., 2015). In addition, adolescents are a particular target group for media and the advertising industry (Purcell, 2010; Brown et al., 2013; Swanson et al., 2013; Verstraeten et al., 2014), which influences adolescents’ preferences when making decisions (Stead et al., 2011).

In addition, society’s view of adolescents determines their opportunities to make health choices (Ayres & Pontes, 2018). Adolescents have been regarded as vulnerable, impressionable and dependent on adults (Purcell, 2010; Bester & Kodish, 2017), because their wellbeing is influenced by the choices and actions of others (Bester & Kodish, 2017). Adolescents’ capacity for making health choices has also been questioned (Brown et al., 2013; Correa-Burrows & Burrows,
Adolescents have been considered to lack knowledge and competence to appreciate their own best interests (Brown et al., 2013) and to understand potential consequences of their choices and health status (Atkins et al., 2010). In addition, adolescents have been considered as part of the population at risk (Thing & Ottesen, 2013), because of the threat their choices may cause to themselves and to social, moral and health issues (Brown et al., 2013; Spencer, 2013). Risky health choices can be viewed as an expression of ignorance and irrationality, which are characteristics often associated with adolescents (Spencer, 2013; Thing & Ottesen, 2013).

2.2 ETHICAL BASIS OF HEALTH CHOICES

In this study, the ethical basis of health choices refers to rights, duties and responsibilities which are linked to autonomy and independence (Page, 2012; Draper & Sorell, 2002; Nordström et al., 2013; Carnevale & Manjavidze, 2016). However, health choices are also based on human dignity (Paul, 2007; Buchanan, 2000) and justice (Rawls, 1999; Buchanan, 2000; Beauchamp & Childress, 2012; Nordström et al., 2013). Human dignity means that adolescents must be recognized as individual humans (Streuili et al., 2011; Fitchett, 2011) who have a right to make their own decisions (Paul, 2007; Buchanan, 2000) and achieve and fulfil their duties and responsibilities (Buchanan, 2000). Justice implies the fair treatment of individuals (Rawls, 1999; Buchanan, 2000) and reasonable distribution of benefits and burdens in society (Beauchamp & Childress, 2012; Buchanan, 2000). Thus, justice includes both equal rights to make their own choices, but also fair distribution of duties and responsibilities (Rawls, 1999) to take others and the common good into consideration (Buchanan, 2000). However, justice demands equality (Beauchamp & Childress, 2012; Buchanan, 2000) in health choices and also circumstances and opportunities to achieve and fulfill rights, duties and responsibilities (Fitchett, 2011).

2.2.1 Autonomy with respect to independent choices

Health choices are based on autonomy (Lev, 2011; Carnevale & Manjavidze, 2016; Beauchamp & Childress, 2012) and independence (Hashmi, 2013). Autonomy and independence refer to the individual’s right and freedom to make their own choices (Fitchett, 2011; Draper & Sorell, 2002; Civaner & Arda, 2008; Beauchamp & Childress, 2012; Hashmi, 2013) and to live according to their own values (Ruger, 2010; Nordström et al., 2013; Van Petegem et al., 2012; Beauchamp & Childress, 2012). Autonomy can also imply to being autonomous as a state of being (Oshana, 2002; Van Petegem et al., 2012).

Adolescence is a phase of life that focuses on the establishment of autonomy, while still maintaining positive relationships with parents (Vera-Estay et al., 2015; Spear & Kulbok, 2004). Adolescents are increasingly dependent on their parents (Van Petegem et al., 2012). Thus, adolescents’ autonomy can be considered to be a matter of degree (Nordström et al., 2013) or as a continuum (Spear & Kulbok, 2004). Matter of degree refers to the level at which adolescents can make choices according on their own values (Nordström et al., 2013) and continuum, ranges from dependence on adults at one end to independence at the other (Spear & Kulbok, 2004).

Autonomous decision-making requires competence (Beauchamp & Childress, 2012). Competence presumes rationality and the ability to make one’s own choices (Marchman Andersen et al., 2013; Buyx, 2008; Kangasniemi et al., 2012; Beauchamp & Childress, 2012), but also to achieve and fulfil duties and responsibilities. The ability to make one’s own choices refers to opportunities to decide without external interference from others (Brown, 2013; Beauchamp & Childress, 2012). Competence also includes the ability to consider potential consequences of decision (Kangasniemi et al., 2012; Gauthier, 2005) and to examine the morality of those choices (Buettow, 2006; Oshana, 2002; Beauchamp & Childress, 2012).
2.2.2 Rights, duties and responsibilities

Autonomy has been identified as a prerequisite for health choices related rights, duties and responsibilities (Beauchamp & Childress, 2012; Oshana, 2002; Nordström et al., 2013; Kangasniemi et al., 2012; Gauthier, 2005) and these three are interconnected (Passini, 2011; Civaner & Arda, 2008; Snelling, 2015). The right to make one’s own health choices is accompanied by a duty to respect others’ similar rights (Passini, 2011; Michailakis & Schirmer, 2010; Nickel, 2017; Beauchamp & Childress, 2012; Kangasniemi et al., 2012). Thus rights are meaningless without corresponding duties (Passini, 2011; Beauchamp & Childress, 2012; Archard, 2016; Wenar, 2015). However, duties are also separate from rights and they do not require the existence of rights (Passini, 2011; Beauchamp & Childress, 2012). The relationship between rights and duties is apparent in the concept of responsibility. Health choices related rights highlight the rights one is responsible for protecting. (Passini, 2011.) Responsibility also forms the basis for duties. If responsibility is denied then there would be no basis for duties either. (Snelling, 2015.) Thus, health choices can be seen as a right, duty or responsibility, meaning that individuals have the responsibility to take care of their own rights and duties (Kangasniemi et al., 2015).

Rights

Rights mean having a claim to something (Paul, 2007; Jones & Welch, 2010; Wenar, 2015). They can be regarded as a protected exercise of choice or protection of an interest (Archard, 2016). Rights can also highlight which actions are permissible (Wenar, 2015); their purpose is to protect individual freedom (Passini, 2011) and they are supposed to act as a moral guarantees, leading to minimum requirements for a good life (Fagan, 2018; Nickel, 2017).

Rights are originated within the human rights, which are fundamental, inherent and universal. Thus they belong to everyone and are applicable regardless of age, gender or nationality. (United Nations, 1948, 1990a; Rawls, 1999; Paul, 2007; Nickel, 2017.) Thus, human rights cannot be given or taken away (Paul, 2007; United Nations, 1948; United Nations, 1990a). Human rights are also supported by legal and political rights (Paul, 2007; Fagan, 2018; Nickel, 2017).

Based on the origins of rights, liberty and welfare rights have been identified (Jones & Welch, 2010; Nickel, 2017; Wenar, 2015). Liberty rights refer to the freedom to act, whereas welfare rights include issues in relation to basic needs such as nutrition, education and healthcare (Jones & Welch, 2010). In addition, negative and positive rights have been recognized (Fitchett, 2011; Passini, 2011; Beauchamp & Childress, 2012; Jones & Welch, 2010; Wenar, 2015). Negative rights refer to freedom from pressure, coercion and maleficence, whilst positive rights imply entitlement to something, such as the right to healthcare (Fitchett, 2011; Beauchamp and Childress, 2012; Wenar, 2015).

One essential right, is the right to make one’s own health choices (Buyx, 2008; Paul, 2007; Gauthier, 2005; Kangasniemi et al., 2015; Beauchamp & Childress, 2012) and to have those decisions respected by others (Gauthier, 2005). Health choices related rights focus on issues in relation to general wellbeing, such as access to basic living conditions including safe drinking water and education (UNESCO, 2010; UNESCO, 2009). People also have rights to healthcare services, including the right to access these services (Civaner & Arda, 2008; UNESCO, 2010; Beauchamp & Childress, 2012), to receive accurate information (UNESCO, 2010; Gauthier, 2005; Kangasniemi et al., 2015) and to receive respectful care (Gauthier, 2005).

From the adolescents’ perspective, health choices related rights focus on their autonomy with respect to making their own decisions. Adolescents have the right to express their own opinions and participate in issues affecting on them. They are also entitled to have their opinions taken into account. In addition, the right to basic prerequisites that allow for choices and wellbeing have been acknowledged; these include nutrition, shelter, a safe environment and education. (United Nations, 1990a.)
Duties

Health choices related duties refer to things one should do (Jones & Welch, 2010). Based on their origins, duties can be classified into moral and legal ones. Moral duties cannot be imposed by others or by society, whilst legal duties are dependent on legislation and can result in sanctions when ignored. (UNESCO, 2010.) The idea of positive and negative duties has also been used to describe the origin of duties. Negative duties imply the requirement to avoid something such as harming others, whereas positive duties focus on promoting one’s own health or that of others. (Rawls, 1999; Evans, 2007; Beauchamp and Childress, 2012.)

However, health choices related duties are conditional, because both people and context vary. Conditionality means that whilst everyone has the same duties, the autonomy and competence to achieve and fulfil them varies (Evans, 2007) in relation to individual premises, including age, life situation, health status and resources such as economic situation (Hirjaba et al., 2015). It has been suggested that duties are non-negotiable because they bring benefits for the individual and society, such as promoting individual health and wellbeing (Evans, 2007). However, duties have also been regarded as voluntary, since an individual can choose whether to fulfil duties or not (Kangasniemi et al., 2015). In addition, it has been identified that health choices related duties follow social roles (Beauchamp & Childress, 2012), but they are due to people in general and not only to those who are in particular situations (Rawls, 1999).

Health choices related duties are focused on the individual (Kangasniemi et al., 2012; Hirjaba et al., 2015) and they aim to perceive and promote individual wellbeing. These duties include taking care of oneself by avoiding unnecessary risk (Evans, 2007) and making healthy choices (Hervik & Thurston, 2016). Individuals have a duty to seek (Draper & Sorell, 2002; Kangasniemi et al., 2012; Evans, 2007) and access healthcare services (Kangasniemi et al., 2012; Hirjaba et al., 2015). An individual’s duty to participate (Draper & Sorell, 2002; Kangasniemi et al., 2012; Evans, 2007; Hirjaba et al., 2015) and give truthful information in healthcare services has also been identified (Kangasniemi et al., 2012; Evans, 2007; Hirjaba et al., 2015).

In addition, duties are targeted towards others, including family members, relatives, work and school colleagues and members of other social networks and individuals (Hirjaba et al., 2015). These duties aim to protect (Evans, 2007; Hirjaba et al., 2015; Kangasniemi et al., 2012) and respect others (Draper & Sorell, 2002; Kangasniemi et al., 2012; Evans, 2007; Hirjaba et al., 2015). However, the duty of self-care can also have implications for others (Hirjaba et al., 2015). Duties at a society level have also been identified. Previous studies have identified the individual’s duty to respect the healthcare system (Kangasniemi et al., 2012; Hirjaba et al., 2015) by following health promotion recommendations (Draper & Sorell, 2002; Evans, 2007). In addition, the duty to limit demand on healthcare resources has been recognized (Draper & Sorell, 2002).

Duties produce individual benefits (Evans, 2007) by promoting physical and mental wellbeing and providing appropriate care (Hirjaba et al., 2015; Kangasniemi et al., 2012). Duties are a way to participate in one’s own healthcare and influence quality of life (Hirjaba et al., 2015). Individual duties can also improve public health (Kangasniemi et al., 2012): they improve the wellbeing of society when individuals take care of their own health and thus decrease health complications and demands on healthcare resources (Hirjaba et al., 2015).

Health choices related duties have not previously been studied from the adolescents’ perspective. The focus in the past has been on parental duties to their child (e.g. Birchley, 2016; Puls, 2016) and healthcare professionals’ duties to their patients (Allmark, 2002; Runeson et al., 2002; Michaud et al., 2015).

Responsibility

Responsibility refers to control over one’s own choices and affairs (Lev, 2011). Responsibility implies that the individual is subject to moral appraisal (Marchman Andersen et al., 2013). Health choices related responsibility can be examined in relation to individual choices (Bringedal & Feiring, 2011; Brown, 2013; Snelling, 2012; Hervik & Thurston, 2016), the consequences of those decisions (Cappelen & Norheim, 2006; Snelling, 2012; Bringedal & Feiring, 2011; Brown, 2013) or
in general over the individual and their life (Hervik & Thurston, 2016; Snelling, 2012; Williams, 2018). Responsibility over oneself is associated with both accountability and blame (Snelling, 2012).

Moral and legal responsibility have been identified in previous studies (Williams, 2018; Sartorio, 2007; Gauthier, 2005). Moral responsibilities are founded on ethics and the relationship with other people, such as the responsibility to take others into consideration when making one’s own health choices (Snelling, 2012; Gauthier, 2005; Williams, 2018), whilst legal responsibilities are protected by legislation (Sartorio, 2007; Kangasniemi et al., 2012; Buetow, 2006; Williams, 2018) and include, for example, the responsibility to help others in case of an emergency.

In addition, causal (Gauthier, 2005; Sartorio, 2007; Audulv et al., 2010; Snelling, 2012), capacity (Buetow, 2006; Michailakis & Schirmer, 2010; Ahola-Launonen, 2015) and role responsibilities have been recognized (Buetow, 2006; Michailakis & Schirmer, 2010; Kangasniemi et al., 2012). Causal responsibility implies that individuals should be held responsible for the consequences of their health choices and thus also for the factors affecting health choices, not only decision-making (Cappelen & Norheim, 2005; Draper & Sorell, 2002; Snelling, 2015; Cappelen & Norheim, 2006). Capacity responsibility, on the other hand, focuses on individual abilities to understand and foresee consequences of choices. To be held responsible, one needs to meet the requirements associated with being a competent and autonomous agent. (Buetow, 2006; Michailakis & Schirmer, 2010; Kangasniemi et al., 2012; Ahola-Launonen, 2015.) Role responsibility is determined by social roles that imply expected behaviour and choices in certain social situations. Thus, individuals become responsible by acting according to these roles. For example, individuals have different kinds of responsibilities when operating in the role of employee compared to those of a patient within the healthcare system. (Buetow, 2006; Kangasniemi et al., 2012; Michailakis & Schirmer, 2010.)

Health choices related responsibilities are targeted towards one’s own self and wellbeing (Nortvedt et al., 2011). Responsibilities include taking care of one’s own rights (Kangasniemi et al., 2015) and health (Civaner & Arda, 2008; UNESCO, 2010; Hervik & Thurston, 2016) by avoiding unhealthy options (Horton, 2014; Civaner & Arda, 2008; Evans, 2007; Hirjaba et al., 2015; Hervik & Thurston, 2016). Individual responsibilities also focus on following healthcare advice (Civaner & Arda, 2008). The responsibility to seek help from healthcare professionals and use services with respect have been identified (Civaner & Arda, 2008; Evans, 2007). In addition, the responsibility to take others into consideration when making health choices has been recognized (Draper & Sorell, 2002; Civaner & Arda, 2008).

Responsibility has essential value for individual health choices, by motivating people and by holding them accountable for their decisions (Lev, 2011). Thus, responsibility can increase the sense of control over one’s own life and choices (Lev, 2011; Michailakis & Schirmer, 2010). Responsibility can strengthen the sense of competence (Buetow, 2006) which could in turn result into improved health choices (Lev, 2011; Gauthier, 2005) and quality of life (Audulv et al., 2010). Responsibilities also have wider implications by limiting harm caused to others and society (Gauthier, 2005).

From the adolescents’ perspective, research into health choices related responsibilities has focused on taking care of their own health by monitoring changes and symptoms of certain chronic diseases (Kayle et al., 2016; Annunziato et al., 2015; Lancaster et al., 2015). Thus, to date, the point of view of healthy adolescents is missing.

2.3 SUMMARY OF THE THEORETICAL BACKGROUND

Health choices are crucial in adolescence. Health choices are conscious or unconscious decisions that have an influence on health (Figure 1). Focusing on adolescents’ health choices positions adolescents as active agents and participants in managing their own health. Adolescents’ health choices are characterized by their individual premises, including phase of life, which also
determines adolescents’ capacities and opportunities to make decisions. Decisions made in adolescence can have long lasting influences. However, adolescents’ decisions also have potential implications on others’ health and wellbeing as well public health. Although, adolescents’ health has improved in recent decades, current key concerns include decisions relating to weight management and substance use.

Adolescents’ health choices are made in relation to social circumstances and societal context (Figure 1). In particular, parents and peers play an important role in influencing adolescents’ decisions. In addition, society determines adolescents’ opportunities to make their own choices, such as living conditions and the understanding of adolescents and their capacity to make such choices. On the other hand, individual choices are also in the interest of society, because of their influence on healthcare services.

The ethical basis of health choices lies in autonomy, which includes the right to make one’s own choices and the duty to respect others’ similar rights (Figure 1). The right to make one’s own choices involves the responsibility to take care of others, but also to look after one’s own rights and duties. Health choices related rights, duties and responsibilities are interlinked and described as partly overlapping in previous literature, but in this study, they are considered to be separate. They are flexible in the sense that they can function in relation to each other and vary between individuals and in social, temporal and cultural context. Thus, the ethical basis of health choices is founded on social relationships.

Although adolescents’ health and health choices have been widely studied, the ethical basis has previously been dismissed. Thus, there is a lack of knowledge about this subject, with only a few studies covering this significant area. In order to support adolescents in their health choices, it is important to investigate the ethical basis of health choices comprehensively.
Decisions made in adolescence can have long-lasting influences. However, adolescents’ decisions also have potential implications on others’ health and wellbeing as well as public health. Although, adolescents’ health has improved in recent decades, current key concerns include decisions relating to weight management and substance use.

Adolescents’ health choices are made in relation to social circumstances and societal context (Figure 1). In particular, parents and peers play an important role in influencing adolescents’ decisions. In addition, society determines adolescents’ opportunities to make their own choices, such as living conditions and the understanding of adolescents and their capacity to make such choices. On the other hand, individual choices are also in the interest of society, because of their influence on healthcare services.

The ethical basis of health choices lies in autonomy, which includes the right to make one’s own choices and the duty to respect others’ similar rights (Figure 1). The right to make one’s own choices involves the responsibility to take care of others, but also to look after one’s own rights and duties. Health choices related rights, duties and responsibilities are interlinked and described as partly overlapping in previous literature, but in this study, they are considered to be separate. They are flexible in the sense that they can function in relation to each other and vary between individuals and in social, temporal and cultural context. Thus, the ethical basis of health choices is founded on social relationships.

Although adolescents’ health and health choices have been widely studied, the ethical basis has previously been dismissed. Thus, there is a lack of knowledge about this subject, with only a few studies covering this significant area. In order to support adolescents in their health choices, it is important to investigate the ethical basis of health choices comprehensively.

Figure 1. The ethical basis of adolescents’ health choices based on previous knowledge
3 Aims of the study

The purpose of this study was to explore the ethical basis of adolescents’ health choices with the focus on rights, duties and responsibilities and to develop and pre-test a scale to measure this. The aim is to provide new knowledge, internationally, to build up a conceptual basis for nursing and health sciences by clarifying and deepening understanding of the ethical basis of health choices. The findings can be utilized in adolescents’ health promotion and more widely in healthcare and professional education, but also within society to determine and support opportunities to achieve and fulfil the rights, duties and responsibilities of all individuals.

The specific study objectives were as follows:
1) To describe health choices related rights, duties and responsibilities from the point of view of society (Original publication I)
2) To examine the current state of science regarding adolescents’ health choices related rights, duties and responsibilities (Original publication II)
3) To describe adolescents’ lived experiences of health choices related rights, duties and responsibilities (Original publication III)
4) To develop a scale to measure adolescents’ perceptions of their health choices related rights, duties and responsibilities and to pre-test it (Original publication IV)
4 Methods

4.1 STUDY DESIGN

The research philosophy of this study is pragmatism, implying that there are multiple realities and perspectives of the ethical basis of adolescents’ health choices. The epistemological premise of pragmatism is that those multiple realities need to be studied with methods best suited to addressing the research question and the emphasis is on the research questions rather than the methods. (Onwuegbuzie, Johnson and Collins, 2009; Creswell and Plano Clark, 2018.)

This study used a mixed methods design (Figure 2), which allowed a range of diverse perspectives on the study topic to be synthesized, resulting in a broad understanding of adolescents’ health choices related rights, duties and responsibilities (Creswell & Plano Clark, 2018; Johnson et al., 2007; Teddlie & Tashakkori, 2009). The mixed method approach was an exploratory sequential design, with separate, consecutive phases and sub-studies (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). The results of the exploratory phase were used to develop a scale, which was then subjected to preliminary tests, before the final phase of the study in which the results of all sub-studies were interpreted and synthetized (Creswell & Plano Clark, 2018; Onwuegbuzie et al., 2009; Doyle et al., 2009; Bishop, 2015).

![Figure 2. The study design](image-url)
Findings from each of the phases and sub-studies determined the next step (Figure 2). The first sub-study aimed to describe and understand the ethical basis of adolescents’ health choices and included three phases. In phase I, health choices related rights, duties and responsibilities were examined in the societal context. This revealed that definitions and implications for practice were lacking and adolescents’ rights, duties and responsibilities were hardly mentioned. Therefore, an integrative review focusing on the ethical basis of adolescents’ health choices was conducted in phase II. The results of the study showed that existing knowledge was fragmented and adolescents’ duties were not discussed. Thus, adolescents’ focus groups were convened III, to explore the range of lived experiences and describe the content of the ethical basis of adolescents’ health choices. A semi-structured interview guide for the focus groups was developed based on the knowledge acquired during phases I and II. Adolescents’ descriptions of their health choices related rights, duties and responsibilities provided a qualitative understanding of them. The results of phases I-III were combined to form the basis for the development of the novel scale and it’s pretesting, in the second sub-study. In the final phase of this study, the knowledge produced was synthetized and interpreted in relation to previous knowledge to gain a deeper understanding of the ethical basis of adolescents’ health choices.

In empirical data collection, (Original publication III and IV), the age limits was set on 15 and 16 years old adolescents, due to their abstract thinking ability and the level of independence (Hashmi, 2013), which is apparent, for example in the context of the adolescents’ right to give an informed consent for research participation without parental consent (Medical Research Act 488/1999). In addition, 15 and 16 years old adolescents are at ninth grade pupils in the Finnish school system, which is the final year of compulsory education and thus the latest grade level that gathers the entire age group to the same schools (Finnish National Agency for Education, 2018).

4.2 DOCUMENT ANALYSIS FOR THE HEALTH POLICY

Document analysis was used to describe and analyse the ethical basis of health choices in the health policy documents of the Finnish Ministry of Social Affairs and Health (Sosiaali- ja terveysministeriö, STM). Document analysis is a systematic procedure to review and evaluate existing material (Bowen, 2009; Finnegan, 2006; Scott, 2004). The data consisted of steering documents, including strategies, plans and recommendations produced by the Ministry (Wilskman & Lähteenmäki, 2010). The steering documents were selected as research data because the focus was on how individual health choices and responsibilities are described at the societal level and these documents aim to support organization and the clinical practice of the social- and healthcare field (Tukia & Wilskman, 2011).

**Document selection**
The data were collected in January 2013 the electronic database of STM, which included categorization of the documents. The documents were selected based on this categorization and the inclusion criteria for the documents were: 1) published 2003-2013, 2) focus on social- and healthcare services and 3) type of the document is strategy, plan, recommendation, agenda or review. From a total of 1809 identified documents, 486 focused on social- and healthcare services, and 54 met the inclusion criteria.

**Data analysis**
Selected documents were analysed according to document analysis (Bowen, 2009; Finnegan, 2006; Scott, 2004). All documents were read through to gain an overall understanding of their contents, then general information was tabulated. Next the data focusing on health choices related rights, duties and responsibilities were identified. Selected data were then separated into groups based on the research questions and according to similarities and dissimilarities. These
groups were further categorized according to their content, into four main themes (Original publication I, Table 4).

4.3 AN INTEGRATIVE REVIEW OF PREVIOUS STUDIES

An integrative review by Cooper (1982, 1984) and Whittemore and Knafl (2005), was used to identify and synthesize previous knowledge with diverse research designs to provide an understanding of the ethical basis of adolescents’ health choices. The literature searches were conducted in two phases. First the integrative review was conducted in 2014 (Original publication II) and then updated, and complementary literature searches were conducted 2018.

Data collection

Literature was searched electronically and manually for the integrative review (Original publication II, Figure 1). Electronic searches were conducted using the scientific databases CINAHL, PubMed, Scopus and Web of Science, in collaboration with library informatics. Search terms were MeSH words with different keyword combinations. In order to ensure coverage of relevant studies, manual searches were conducted. First the reference lists of the selected articles and the journals that included those selected articles were scrutinized. Then the journals Nursing Ethics and Bioethics were checked, because they focus on issues related to the research topic. The updated literature searches were conducted electronically in a similar way as for the integrative review, with the same databases and search terms (Table 4). Limitations were that the study needed to be i) published in English, ii) in the integrative review between 2009 and 2014 and in the updated searches between 2014 and 2018, iii) in a peer reviewed scientific journal and iv) the abstract was available.

Table 4. The literature searches for the integrative review and updated literature searches focusing on the ethical basis of adolescents’ health choices (2009-2018)

<table>
<thead>
<tr>
<th>Databases</th>
<th>Items found</th>
<th>Included based on:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N = 3003)</td>
<td>title (n = 157)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>abstract (n = 49)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>full text (n = 18)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>manual searches</td>
</tr>
<tr>
<td>CINAHL</td>
<td>122 / 117</td>
<td>18 / 2</td>
</tr>
<tr>
<td>PubMed</td>
<td>414 / 408</td>
<td>18 / 63</td>
</tr>
<tr>
<td>Scopus</td>
<td>1 007 / 183</td>
<td>18 / 7</td>
</tr>
<tr>
<td>Web of Science</td>
<td>494 / 258</td>
<td>23 / 8</td>
</tr>
<tr>
<td>Total</td>
<td>2037 / 966</td>
<td>77 / 80</td>
</tr>
</tbody>
</table>

The selection and retrieval of articles was conducted independently by two researchers for the integrative review and by one for the updated literature searches. The article selection was done based on the inclusion and exclusion criteria. The inclusion criteria were that the original study was on healthy children or adolescents (10 to 19 years old) and the focus of the paper was on health choices and covered rights, duties and responsibilities. The exclusion criteria were that the study focused on adults, a specific disease, particular health-related decisions such as vaccination, or reproductive health or environmental issues. In addition, articles reviewing other studies were excluded. A total of 3003 studies were identified (Table 4). First, the title, then abstracts and full
text were screened according to the inclusion and exclusion criteria and the duplicates were removed. In total 13 articles from the integrative review and five articles from the updated literature searches were included, resulting in a total of 18 articles.

Quality evaluation of the selected studies
The quality of the selected full texts was evaluated by two independent researchers during the integrative review (Original publication II, Table I) and by one during the updated literature searches (Appendix table 2), using method-specific appraisal criteria (Caldwell et al., 2011; Gifford et al., 2007; Greenhalgh et al., 2004). According to the method (Cooper, 1984; Cooper, 1982; Whittetmore & Knafl, 2005), the aim was to describe the quality of the original studies, thus all studies were included based on the data appraisal.

Data analysis
Data from all included studies were analysed using qualitative inductive content analysis (Graneheim & Lundman, 2004; Elo & Kyngäs, 2007). The analysis focused on manifested content, referring to visible descriptions (Graneheim & Lundman, 2004). In the first phase, all articles were read several times to familiarize the reader with the data. The second phase was tabulation of the article content. Then all data that focused on adolescents’ health choices related rights, duties and responsibilities were extracted, selecting meaning units, in the form of a word or combination of words. Next the data were sub-categorized based on similarities and differences and further abstracted into the main categories. (Original publication II.) Results of both the integrative review and the updated literature searches are presented as synthesis.

4.4 FOCUS GROUPS WITH SEMI-STRUCTURED INTERVIEWS

The phenomenological hermeneutical study was conducted to explore adolescents’ lived experiences of the ethical basis of health choices, using focus groups with semi-structured interviews. A qualitative approach was considered suitable because there were only a few previous empirical studies that focused on the adolescents’ point of view (Jayasekara, 2012).

The phenomenological hermeneutical method enabled interpretations of meanings of lived experiences and has been found to be suitable for studying ethical issues (Flanagan et al., 2015; Lindseth & Norberg, 2004). In previous studies, semi-structured interviews have been considered an appropriate approach for studying adolescents’ lived experiences on a research topic that they are not used to talking about (Mack et al., 2009; DiCicco-Bloom & Crabtree, 2006; Kallio et al., 2016). In addition, focus groups are an appropriate data collection method in research topics where there is little previous knowledge available (Jayasekara, 2012) and the topic is complex, as was the case here. Focus groups allowed the adolescents to discuss the subject with each other and allowed further questions to be posed by the researcher. (Curtis and Redmond, 2007.) However, the focus of this study was on adolescents’ lived experiences and not on the group interaction.

Participants, recruitment and data collection
A semi-structured interview guide was developed based on previous knowledge and following the process and five stages described by Kallio et al. (2016). In the first stage, prerequisites for using semi-structured interviews were determined. Secondly, a comprehensive understanding of the study topic was gained from previous knowledge. In the third stage, a preliminary interview guide was formulated and in the fourth stage it was piloted with internal and field-testing. Field-testing consisted of two focus groups with a total of 11 adolescents in a real-life situation. In the fifth and final stage, the semi-structured interview guide was presented (Original publication III, Table I). The interview guide development is presented in detail in Original publication III.
The participants were 15 and 16 years old, in the ninth and last grade of the Finnish compulsory school system and were volunteers. Adolescents were recruited from four schools in collaboration with each institution. The data were collected in spring 2016 by the researcher in the adolescents’ schools, during ordinary school days. Fourteen focus groups were arranged involving 67 adolescents as participants. The interviews were recorded and transcribed verbatim. The collected data lasted 7 hours and 52 minutes (from 30 to 45 minutes per group) and corresponded to 161 written text pages in a Word-document.

**Data analysis**

Interview data were analysed using the phenomenological hermeneutical method (Lindseth & Norberg, 2004) because it facilitated interpretation of the meanings of adolescents’ lived experiences. In the first step, the text was read several times to get an overall impression of the content. Secondly, structural analysis was conducted, which consisted of selecting meaning units in the form of single words or combinations of words based on a pre-understanding of rights, duties and responsibilities. Then the meaning units were condensed and compared on the basis of their similarities and differences to create themes and sub-themes. Finally, the created themes were incorporated into the text as a whole to reflect the study aims and previous knowledge of the study subject. The analysis resulted in five main themes (Original publication III, Figure 1).

**4.5 SCALE DEVELOPMENT AND PRETESTING**

The second sub-study was to develop a scale to measure adolescents’ health choices related rights, duties and responsibilities and to pre-test this. The aim was to clarify the content of these concepts and to produce a validated scale, because there were no suitable existing instruments to measure the study topic. The scale developed was named Health, Rights, Duties, Responsibilities, and is referred to as HealthRDR. It was produced following the processes described by DeVellis (2017) and Streiner (2015) (Figure 3). This scale is needed for the examination of the ethical basis of adolescents’ health choices in a broader context.

**Item development**

The content of this novel scale was based on the knowledge derived from sub-study 1 (Original publications I-III) and other relevant literature (Figure 3). In the step I, the blueprint for the scale was structured according to the content of the ethical basis of adolescents’ health choices. Then in the step II following the blueprint, the items comprising the scale were developed, with the aim of finding different ways to word them and to cover all aspects of the content area to be tested. HealthRDR-0.1 was the first version of the scale consisting of 168 items. (Streiner, Norman and Cairney, 2015; DeVellis, 2017.)

**Assessment of content validity of the scale**

Content validity for the items was evaluated by conducting expert analysis to ensure that all items represented attributes of adolescents’ health choices related rights, duties and responsibilities, which was step III. Clarity of the items was also assessed (Figure 3). A panel of 23 experts, including 11 adolescents aged 15 and 16 years old, seven school nurses and five early stage, post-doctoral and senior researchers. Panel members rated the relevance and intelligibility of the 168 items on a four-point electronic scale (one stood for irrelevant/unclear – four for extremely relevant/clear) (Schilling et al., 2007; Zamanzadeh et al., 2015; DeVellis, 2017; Streiner et al., 2015). In addition, an open space for comments was provided to allow suggestions for the improvement of the items.
**Sub-study 1:** To describe and define the conceptual basis of adolescents’ health choices related rights, duties and responsibilities

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original publication I</td>
<td>Original publication II</td>
<td>Original publication III</td>
</tr>
</tbody>
</table>

**Sub-study 2:** To develop a scale to measure adolescents’ conceptions of their health choices related rights, duties and responsibilities

- **Step I**
  Description of the different elements of the scale (Blueprint of the scale), based on sub-study 1 and other relevant knowledge

- **Step II**
  Development of items based on blueprint and item construction

- **Step III**
  Assessment of the content validity and clarity of the items on a four-point rating scale. Expert panel (n = 23) comprising: adolescents (n = 11), school nurses (n = 7), researchers (n = 5). Analysis: content validity and content validity ratio.

- **Step IV**

**Figure 3. Scale development process**

The content validity index (CVI) and content validity ratio (CVR) were calculated to estimate the extent of expert agreement about the items. CVI represents the proportion of experts who rated an item as 3 or 4 (DeVon et al., 2007; Polit et al., 2007). Lawshe’s (1975) formula was used for the calculation of CVR. CVI and CVR were calculated separately for each item (I-CVI and I-CVR). These values were then combined by taking the mean value of both I-CVI and I-CVR to indicate the relevance and clarity, resulting in one value per item. The decision about whether to include each item was made based on the critical level of I-CVI (0.79) (Polit et al., 2007). I-CVR was examined in relation to Ayre and Scally’s proposal (Ayre & Scally, 2014), i.e. a significance level of five percent, where a CVR over 0.39 can be regarded as valid with a sample size of 23. In addition, content validity was assessed on the level of sub-scales and scales (S-CVI/ave and S-CVR/ave), which were calculated by taking the average value of CVIs and CVRs with items in sub-scales and a whole scale (Polit et al., 2007).

**Data collection for the preliminary testing**

Preliminary testing of the second version of the scale, HealthRDR-0.2, was conducted to assess feasibility, reliability and validity and was the step IV of the scale development process. Data collection was conducted with 15 and 16 year old adolescents, in six secondary schools in eastern Finland in autumn 2017. An information letter was sent to all ninth graders in collaboration with the school principal. The letter included a link to the questionnaire. Adolescents were asked to fill in the questionnaire in their free time. One reminder message was sent. However, only a few adolescents participated, thus recruitment was organized in the schools. In six schools, the ninth
graders received an electronic study information letter and the study was also presented to them by the researcher or a school teacher, depending on the school’s protocol. In addition, a researcher visited the schools to collect data. A total of 1026 adolescents were approached during the recruitment phase. The data collection was continued until 200 responses had been gathered, because this sample size was considered adequate for the preliminary testing of the scale (Rattray & Jones, 2007; Hertzog, 2008).

Analysis of the preliminary test
Data analysis was conducted using SPSS version 24.0.0.0 (Statistical Package for the Social Sciences, SPSS). The analysis was conducted for the reported data and missing values were omitted from the analysis (Streiner et al., 2015). Item characteristics were assessed by calculating descriptive statistics for each item: mean, standard deviation and variance. The mean value estimates the ability of the item to detect and separate respondents’ values, with ideal values in the middle of the response scale. Item variance and standard deviation indicate the ability of the item to discriminate answers in the sample. Thus, an item was rejected from the scale if the mean diverged greatly from the total mean or if its variance was near zero. (DeVellis, 2017.)

Internal consistency of the scale and sub-scales were tested using Cronbach’s alpha correlation. This correlation gives an estimate of how well items fit conceptually together (DeVon et al., 2007; Streiner et al., 2015) with values between 0.8 and 0.9 representing good internal consistency (DeVon et al., 2007).

High correlations, referring to correlations near 0.9, between scale items indicate that they represent the same underlying concept, i.e. the concept being measured. This can be assessed by calculating item correlation to the total score. Thus, corrected inter-total correlation and inter-item correlations were calculated. Items with correlation under 0.3 were discarded, because they were regarded as insufficient to contribute to the total score (Ferketich, 1991).
5 Results

5.1 INDIVIDUAL HEALTH CHOICES AND RESPONSIBILITY IN HEALTH POLICY

According to the document analysis (Original publication I), health choices were based on dignity and related to the individual’s right and freedom to make their own choices. Informed decisions were described as a prerequisite for achievement and fulfilment of autonomy. Health choices included being responsible for one’s own health. Steering documents suggested that individuals should take as much responsibility for their own health as possible. However, health choices related responsibility was also linked to other people, suggesting that individuals have responsibility for the health and wellbeing of those close to them. An individual’s role responsibility was considered to determine the focus of responsibilities, so that parents have responsibility over their children, and citizens have moral and criminal responsibility over their own actions.

Choice-making was characterized as varying and health choices could be conscious or unconscious and may be difficult for some individuals. Health choices were portrayed as an opportunity to influence one’s own health and lifestyle, but individual decisions could have an impact on other people and public health as well. For example, choices in relation to alcohol use were recognized to have potential risks for the individual but also to people close to them, communities and society.

Health choices and responsibility were built upon individual premises, including capacity and knowledge as well as values, attitudes and feelings. However, individual choices were described as being made relation to social context. In particular, family was considered to have a crucial influence on individual decisions due to attitudes, life situation and economic conditions. For instance, parents’ modelled behaviour and choices were described as having long-term impacts on children’s future decisions.

Social institutions such as schools and workplaces were recognized as being able to provide opportunities for individuals to make healthy choices and bear responsibility. The social and healthcare role was to support health choices related responsibility, and also acknowledged to decrease the need for services in the future. Social- and healthcare professionals could provide knowledge and opportunities to make healthy choices, but the final decision was to be made by the individual. Although individuals should be encouraged and supported to take responsibility over their own choices and life, special attention should be given to situations when there is a lack of knowledge or the capacity to control one’s own life.

Society was considered to have an integral role in enabling individuals to make decisions and take responsibility, by promoting opportunities to make healthy choices. Respect for autonomy was described as a basis for the promotion of individual choices and responsibility. In order to enable achievement and fulfilment of autonomy, individuals should have opportunities to participate in decision-making concerning their own lives. In addition, society could support individual choices and responsibility through socio-political actions, such as controlling taxes and prices. Taxes and price control could be targeted to support healthy choices. The living environment could also be modified to promote healthy choices, for example by offering opportunities for accessible exercise.

According to the results, clear boundaries between responsibility of individuals and society could not be set. Although individuals have responsibility for themselves and those they are close to, society holds the final responsibility for taking care of its citizens.

In conclusion, individual health choices and responsibility over them were highlighted in the steering documents. Health choices were described as individual’s decisions that included rights
and responsibilities for one’s own self and those one is close to. Individual choices and responsibilities were influenced by individual premises, communities, and society that created opportunities for the achievement and fulfilment of autonomy. However, it was unclear how health choices related to responsibility were to be implemented in practice. Rights and responsibilities were fragmented, and duties were barely mentioned. In addition, adolescents’ points of view went unheeded.

5.2 ETHICAL BASIS OF ADOLESCENTS’ HEALTH CHOICES IN PREVIOUS STUDIES

Based on the integrative review (Original publication II), adolescents’ health choices related rights and responsibilities were the main focus of a single study (Ayres & Pontes, 2018) and the rest of those included these as part of other health issues. Adolescents’ duties were not mentioned. The selected studies included seven qualitative, six quantitative and five theoretical papers, with a range of different data collection methods. None of the instruments that were used in the quantitative studies focused directly on rights, duties or responsibilities.

Adolescents’ health choices were based on autonomy, which referred to the ability to choose independently and according to the individual’s own values. Autonomy was described as developing adolescents’ identity and independence and required sufficient self-confidence and capabilities. (Original publication II.) Adolescents’ capacity to make their own health choices and take responsibility accordingly (Riiser et al., 2015; Original publication II) were questioned, due to debate about their ability to understand potential consequences of health choices (Parsapoor et al., 2014; Original publication II). Assessment of adolescents’ capacity was considered to be challenging, because of the relationship between the right to autonomy and protection. In addition, variation in adolescents’ capacity due to age phase was identified, but capacity was also considered in terms of the cultural and legislative context. (Parsapoor et al., 2014.)

Health choices required that adolescents have freedom and opportunities to make independent decisions without interference from others (Riiser et al., 2015; Original publication II). Freedom referred to personal space and opportunity to make choices without restrictions or pressure to make similar choices to their peers. Parents were described as controlling and restricting adolescents’ health choices and rights. The studies analysed suggested that adolescents’ rights were treated unequally or considered less valuable compared to adults, which could limit adolescents’ opportunities to exercise their rights. (Original publication II.) For example, Riiser (2015) highlighted the fact that adolescents’ views could be easily overridden by the arguments of adults.

Responsibility referred to action that included choice-making and preparation for it and resulted in action with respect to health (Ayres & Pontes, 2018). Adolescents’ choices required awareness of health and the motivation to make decisions and take responsibility accordingly. Adolescents stated that individuals have to take responsibility over their own choices. (Lindmark and Abrahamsson, 2015.) Responsibilities were focused on health promoting choices, such as exercising, nutrition and social relationships, but also on self-control. In addition, responsibility to take others’ perspectives into consideration when making health choices was recognized. (Original publication II.)

Adolescents’ responsibility was also connected to blame. For example, adolescents were described as being blamed by other people for their weight, and adolescents themselves also considered themselves responsible for the situation. Blaming was considered to indicate that adolescents were responsible for a situation, although weight or health status were rarely only the result of autonomous decisions. (Riiser et al., 2015.) Moral responsibility was also represented as being part of health choices. Moral responsibility referred to the fact that adolescents were subjected to moralization and were blamed for their choices, judging unhealthy choices as wrong
and treating them as individual failures. However, counter-moralization was found to induce healthy choices, for example in relation to food snacks. (Mulder, Rupp and Dijkstra, 2015.)

Adolescents were described as thinking that they have the right to make independent health choices, but no responsibility to promote their own health (Original publication II). It was suggested that parents and society have responsibility to ensure adolescents’ right to make their own choices and to provide opportunities for healthy choices (Riiser et al., 2015; Original publication II). Parents responsibility over their children was described as extending to the right to make decisions for adolescents (Parsapoorn et al., 2014). Parents were considered to have a crucial role in teaching adolescents to achieve and fulfil health choices related responsibility, which required a balance between protection of adolescents and their freedom to make independent health choices (Lindmark and Abrahamsson, 2015).

In conclusion, adolescents’ health choices were considered to be based on autonomy, freedom and opportunities to make decisions. However, adolescents’ capacity to make their own choices was questioned. Responsibility was illustrated as an aspect of health choices and targeted towards the individual and others. Parents were described as having an essential role in supporting adolescents’ opportunities to make own decisions and achieve and fulfil their responsibilities. Previous knowledge focusing on the ethical basis of adolescents’ health choices was somewhat disconnected. The meanings of the rights, duties and responsibilities were undefined. In addition, there were no validated instruments to measure these issues.

5.3 ADOLESCENTS’ LIVED EXPERIENCES OF HEALTH CHOICES RELATED RIGHTS, DUTIES AND RESPONSIBILITIES

According to the descriptions of adolescents’ lived experiences (Original publication III), health choices were independent decisions. They could also be made unconsciously and based on habits. Adolescents considered health choices as a means to influence their own health and have a say in issues that affected them. For adolescents, health choices were associated with being independent. Health was described as including both physical and mental feelings of wellbeing and focused on the current situation.

Adolescents described rights as things they were allowed to have or to do. Rights were seen as undeniable and universal and equal for everyone. However, adolescents highlighted the fact that opportunities and circumstances to achieve and fulfil rights were different. For example, money was considered to influence adolescents’ opportunities to purchase healthy food or medication. Adolescents focused their rights on fulfilment of basic needs, opportunities to make independent decisions, to express their own views and to participate in issues that affected them. In addition, adolescents stated that they have a right to healthcare services, such as the right to access a physician or school nurse when needed. Adolescents also identified basic education as their right, because it offered knowledge as a basis for their health choices.

Adolescents described their duties as things that needed to be accomplished or that they were recommended to do. Duties were portrayed as universal, suggesting that they belong to everyone. However, adolescents characterized duties also as unique, which implied that duties could vary depending on the situation and context. Adolescents’ lived experiences were that their duties were focused on looking after their own health, controlling their own choices and seeking help from healthcare services when needed. In addition, adolescents identified the duty to take others into consideration, for example in the case of smoking. Helping others in an emergency was perceived as a legal and moral duty. Adolescents also discussed the duty to help others, for instance in the case of witnessing bullying at school.

For adolescents, responsibility referred to looking after oneself and taking care of required tasks. However, adolescents found it difficult to define responsibility and separate it from duties, because they were perceived to be almost the same, despite acknowledging that there were differences. Adolescents focused their responsibilities on making independent decisions and
taking care of their own health and wellbeing and that of others. In addition, responsibility to use healthcare services was acknowledged; i.e. using healthcare services when needed, for example, attending dental health checks regularly.

Adolescents considered that health choices are not only independent decisions, because they are influenced by individual premises and social and societal context. This acknowledged that individual premises and context could limit or support adolescents’ opportunities to achieve and fulfil their rights, duties and responsibilities. Individual premises included age, which was considered to control adolescents’ levels of independence. However, adolescents stated that their independence increased during adolescence and thus there were progressively more opportunities to make their own decisions. Adolescents also brought up the fact that their feelings such as fear of failure could influence their capacity to achieve and fulfil their rights, duties and responsibilities. Adolescents were concerned that their rights, duties and responsibilities were not stated openly but implied. This was perceived to limit their knowledge and understanding of the expectations placed on them.

In respect of the social context, parents in particular were considered to be agents who could enable or restrict opportunities for health choices. Adolescents described relationships with their parents, their trust and the balance between protection and independence, increasing adolescents’ opportunities to achieve and fulfil their rights, duties and responsibilities. However, the societal context also influenced adolescents’ decisions, for example through legislation, living environment and social- and healthcare services. Legislation was perceived to limit adolescents’ opportunities to purchase substances. The living environment, including public transport and accessibility of extracurricular activities, were considered to both limit and enable adolescents’ choices. For example, if there was no public transport, adolescents had to use a bicycle or stay home due to long distances, thus affecting their opportunities to participate in their preferred extracurricular activities. Adolescents stated that social- and healthcare services, such as the school nurse, dental health or emergency services, should be easily accessible at low cost and this would help them to achieve and fulfil their rights, duties and responsibilities.

Adolescents described their rights, duties and responsibilities as being interlinked and supporting their independence. In addition, rights, duties and responsibilities were considered to strengthen the functioning of society through their influence on public health and on order and safety.

In conclusion, adolescents’ health choices were described as an aspect of their independence and opportunity to influence their own health. Adolescents identified their rights, duties and responsibilities as an integral part of their choice-making. Rights, duties and responsibilities were described as being separate but interlinked. They were considered to be universal, but dependent on individual and social opportunities, which resulted in differences in practice. There is need for a wider examination of adolescents’ perceptions of these issues.

5.4 HealthRDR-Scale

A new scale HealthRDR to measure adolescents’ perceptions of their health choices related rights, duties and responsibilities was developed, based on the first sub-study and other previous knowledge (Original publication IV). The HealthRDR-scale consists of four sub-scales: health choices, rights, duties and responsibilities (Table 5). All the items were positively worded, and they had two dimensions relating to fulfilment and importance. The scoring format was a five-point Likert type scale from one to five, where one stood for never fulfils/not at all important and five for always fulfils/extremely important. In addition, there was the option not to answer.
Table 5. Summary of the HealthRDR-scale

<table>
<thead>
<tr>
<th>Sub-scales</th>
<th>Example of items</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health choices</td>
<td></td>
<td>n = 15</td>
</tr>
<tr>
<td>- Independent choice-making</td>
<td>I can independently and without interference of others decide whether I wear a helmet when cycling.</td>
<td>3</td>
</tr>
<tr>
<td>- The way choices are made</td>
<td>Generally, I consider potential health impacts of my health choices.</td>
<td>3</td>
</tr>
<tr>
<td>- Influence of choices</td>
<td>My health choices influence how well I can manage in everyday life.</td>
<td>9</td>
</tr>
<tr>
<td>Rights in relation to</td>
<td></td>
<td>n = 36</td>
</tr>
<tr>
<td>- Own health and wellbeing</td>
<td>I have a right to rest and sleep.</td>
<td>7</td>
</tr>
<tr>
<td>- Individual choices</td>
<td>I have a right to make independent health choices without interference from others.</td>
<td>4</td>
</tr>
<tr>
<td>- Healthcare</td>
<td>I have a right to get healthcare services even before I have fallen ill.</td>
<td>11</td>
</tr>
<tr>
<td>- Others</td>
<td>I have a right to be protected from unhealthy choices.</td>
<td>5</td>
</tr>
<tr>
<td>- Meaning and importance of</td>
<td>Health choices related rights enable me to maintain and improve my health.</td>
<td>9</td>
</tr>
<tr>
<td>duties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duties in relation to</td>
<td></td>
<td>n = 47</td>
</tr>
<tr>
<td>- Own health and wellbeing</td>
<td>I have a duty to rest and sleep so that I am able to cope in my everyday life.</td>
<td>9</td>
</tr>
<tr>
<td>- Individual choices</td>
<td>I have a duty to make choices that promote my health.</td>
<td>5</td>
</tr>
<tr>
<td>- Healthcare</td>
<td>I have a duty to participate in making decisions concerning my own health.</td>
<td>11</td>
</tr>
<tr>
<td>- Others</td>
<td>I have a duty to help in case of emergency.</td>
<td>9</td>
</tr>
<tr>
<td>- Meaning and importance of</td>
<td>My health choices related duties improve public health.</td>
<td>13</td>
</tr>
<tr>
<td>duties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsibilities in relation to</td>
<td></td>
<td>n = 50</td>
</tr>
<tr>
<td>- Own health and wellbeing</td>
<td>I have a responsibility to take care of my own medication.</td>
<td>11</td>
</tr>
<tr>
<td>- Individual choices</td>
<td>I have a responsibility to avoid unhealthy choices.</td>
<td>4</td>
</tr>
<tr>
<td>- Healthcare</td>
<td>I have a responsibility to attend routine healthcare checks, for example at the school nurse or dental healthcare.</td>
<td>11</td>
</tr>
<tr>
<td>- Others</td>
<td>I have a responsibility to take care of my friends’ health and wellbeing.</td>
<td>8</td>
</tr>
<tr>
<td>- Meaning and importance of</td>
<td>My health choices related responsibility enable me to participate in my own healthcare.</td>
<td>16</td>
</tr>
<tr>
<td>responsibilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Items in total                  | 148                                                                               |

Health choices were defined as conscious or unconscious decisions that can have a direct or indirect influence on health and they are linked to multiple and complex factors at varying levels. Items in relation to health choices focused on targets of health choices, the way those choices are made and the potential consequences. Rights were considered to be independent decisions and the opportunity to participate in issues that affected the individual. In contrast, duties referred to something that is recommended or needs to be done. Health choices related responsibilities were defined as looking after one’s own health and wellbeing and that of others and undertaking...
actions that are required. Items in relation to the ethical basis of health choices focused on varying issues, including one’s own health and wellbeing, choice-making, healthcare services and wellbeing of others and the meaning and value of these issues. Health choices related rights, duties and responsibilities were seen as separate and justifiable on their own, although they are closely interlinked.

The content validity of the preliminary version of the new scale, HealthRDR-0.1, was assessed by the panel. Based on these assessments the content validity of the scale score was 0.92 for the S-CVI/AVE and 0.84 for the S-CVR/AVE. Five items under I-CVI 0.78 were removed. I-CVI for the deleted items ranged from 0.67 to 0.78 and CVR from 0.33 to 0.60. After these items were removed the S-CVI/AVE for the whole scale was 0.93 and S-CVR/AVE was 0.85. Minor wording changes were made to clarify 34 items, based on the panel’s comments and discussions in the research group. This resulted in HealthRDR-0.2 comprising 163 items (Table 6).

Table 6. Summary of items according to the sub-scales and development process

<table>
<thead>
<tr>
<th>Sub-scales</th>
<th>HealthRDR-scale number of items</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Health choices</td>
<td>28</td>
<td>25</td>
</tr>
<tr>
<td>Rights</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>Duties</td>
<td>48</td>
<td>47</td>
</tr>
<tr>
<td>Responsibilities</td>
<td>51</td>
<td>50</td>
</tr>
<tr>
<td>HealthRDR-scale</td>
<td>168</td>
<td>163</td>
</tr>
</tbody>
</table>

Preliminary testing of the scale was conducted with respondents aged 15 and 16 years. Of the respondents, 74 were girls (37 %), 70 were boys (35 %) and 56 (20 %) did not want to report their sex. The majority of the responses were returned via a computer (82 %) the rest by smartphone (7 %) or via a tablet (2 %). The remaining 9 % did not specify the device they used.

Based on the results, the variance of the items was adequate, with standard deviation ranging from 0.61 to 1.81 and mean values from 1.9 to 4.7 on a five-point scale. The Cronbach’s alpha coefficient for HealthRDR-0.2 was 0.99 and for the sub-scales 0.86 to 0.99. Corrected item to total correlations ranged from 0.10 to 0.91. Fifteen items were deleted based on their low item-to-total correlation ranging from 0.10 to 0.32. After item removals, the Cronbach’s alpha coefficient was 0.99 overall and for the sub-scales in the range 0.93 to 0.99. Thus HealthRDR-1.0 comprised 148 items (Table 6).

In conclusion, the new HealthRDR-scale consists of four sub-scales: health choices, rights, duties and responsibilities. The scale has good content validity, but high correlations from Cronbach’s alpha indicate the need for further testing and refinement of the concepts.

5.5 SUMMARY OF THE RESULTS

Adolescents’ health choices are conscious or unconscious decisions. This means that adolescents can make their health choices based on informed consideration and rational thinking. However, adolescents’ health choices can also be the result of habits and routine, such as always going to school by bicycle, or they can be made by chance. Thus adolescents’ decisions can be determined by conditional and temporal issues, such as time available for taking care of everyday health related practices or current feelings. In addition, issues that are outside adolescents’ control also determine their decisions, for example the availability of healthy food at home to choose for breakfast.

Health choices are a means to influence their own health and wellbeing. Thus adolescents’ decisions can decrease the risk of getting ill. For adolescents, health choices are an aspect of their independence and provide an opportunity to participate in issues that affect them personally. In
addition, adolescents’ health choices contribute to public health, and can also influence others’ health and wellbeing.

Adolescents’ health choices are based on autonomy and independence and include rights, duties and responsibilities (Figure 4). Rights for adolescents, refer to things they are entitled to, whereas duties are things adolescents are required to accomplish. Adolescents described their responsibilities as looking after particular things and taking care of them. Adolescents’ health choices related rights, duties and responsibilities are interlinked, but separate. Descriptions of adolescents’ duties and responsibilities were overlapping and separating them can be difficult.

Adolescents’ health choices related rights, duties and responsibilities are characterized as universal, which refers the fact that they apply to everyone (Figure 4). Adolescents’ rights, duties and responsibilities are ethical, but also based on legislation. For example, adolescents recognized legislation concerning equality in rights between genders. According to adolescents, rights, duties and responsibilities have implications for their own health and they promote opportunities to participate in and influence issues that affect them. In addition, rights, duties and responsibilities help adolescents learn to manage independently in everyday life. From the adolescents’ perspective, these values also contribute to the wellbeing of society by giving structure to it and ensuring justice and equality.

According to adolescents, they have rights, duties and responsibilities to take care of their own health and wellbeing (Figure 4). This includes the right to have basic needs fulfilled, such as nutrition and a place to live, but also a duty to self-care and the responsibility to look after their own health by taking care of everyday health-related tasks. In addition, adolescents have the right to make their own decisions, express their own opinions and participate in issues that influence them. The right to make their own choices includes responsibility over them, and duty to control their own decisions. Adolescents’ rights, duties and responsibilities are also linked to other people, such as the right to be protected from harmful health choices. However, adolescents also have a duty to look after their peers and help others, for instance if a friend is about to engage in harmful activities. According to the adolescents interviewed, their responsibility is to take care of the health of people they are close to, by acknowledging potential consequences of their decisions on others. In addition, adolescents have rights, duties and responsibilities in relation to healthcare. For example, adolescents have a right to get quality healthcare services at accessible prices, but also the responsibility and duty to seek and use healthcare services in case of need and even before getting ill, such as using the school nurse services.

However, adolescents’ opportunities to achieve and fulfil their rights, duties and responsibilities vary in relation to individual premises and social circumstances (Figure 4). Adolescents’ individual premises include age and development stage, which determine adolescents’ capacity to make decisions and independence. Independence gradually increases opportunities to achieve and fulfil health choices related rights, duties and responsibilities. According to the adolescents, their attitudes and feelings are also connected to their health choices. This means, for example, that if adolescents have a positive attitude towards taking care of themselves, parents allow them freedom to learn to achieve and fulfil their rights, duties and responsibilities. Thus, social circumstances are an essential part of the ethical basis of adolescents’ health choices. Parents’ role is crucial in adolescents’ health choices and they can provide security, restrictions and support for the achievement and fulfilment of rights, duties and responsibilities. Peers can also act as role models for healthy choices or create pressure and expectations relating to adolescents’ decisions.

In addition, the ethical basis of adolescents’ health choices is part of the societal context (Figure 4). Living environment and place of residence influence adolescents’ opportunities for example to exercise or engage in extracurricular activities. The socio-economic situation of adolescents and their families determines, for instance, financial resources that adolescents have available. Healthcare services can offer support and information to help adolescents with their health choices. This includes accessible and available health services. Society legislation, taxes and price policy can also strengthen adolescents’ healthy choices and protect them from unhealthy ones.
However, according to the adolescents interviewed, their rights, duties and responsibilities have not been considered openly, which requires adolescents to interpret them and thus complicates achieving them fully.
ADOLESCENTS´ HEALTH CHOICES

Rights
- things one is entitled to have or do in relation to health
- undeniable, universal and equal

Responsibilities
- looking after particular things in relation to health choices and accomplishing required tasks

Autonomy and independence in relation to age

Duties
- things one needs or is recommended to do in relation to own or others´ health
- unique/universal, belong to everyone

Right to...
- fulfilment of basic needs, e.g. place to live, food
- make own choices
- express own opinions and have those taken into account
- participate in issues that influence the individual
- quality healthcare services free or cheap
- get basic education

Responsibility to...
- take care of own health, including taking care of practical everyday tasks
- make own choices
- take care of health and wellbeing of those they are close to
- take care of relationships with others
- use healthcare services
- meet legal responsibilities

Duty to...
- look after own health e.g. monitor choices in relation to food, exercise and rest
- control own health choices
- take others into consideration
- seek help from healthcare
- help others in case of emergency, school bullying or if someone is about to harm themselves

Individual premises
- age and development stage
- questioned knowledge and capacity to make own choices
- understanding potential consequences of choices
- values, attitudes and feelings such as fear of failure and self-confidence
- economic situation: resources to make healthy choices

Social circumstances
- autonomy and protection: not completely free to make own choices
- opportunities to make own choices without interference of others
- parents: example and choices, expectations, restrictions and control, responsibility over adolescents.
- rewards and punishments: can ease or complicate choice-making
- peers: model, pressure, expectations
- schools: opportunities for healthy choices and responsibility, but also control and restrict

Societal context
- environment and place of residence
- socioeconomic situation: determines opportunities
- healthcare: support, knowledge, availability of services
- culture and legislation: perception of adolescents, their health choices, opportunities to make choices
- rights, duties and responsibilities: not stated openly – require interpretation

Figure 4. Adolescents´ health choices related rights, duties and responsibilities in relation to individual, social and societal context, based on mixed methods results
6 Discussion

6.1 DISCUSSION OF THE STUDY RESULTS

This research provides new knowledge about adolescents’ health choices related rights, duties and responsibilities. The mixed-method design facilitated a broad understanding of this multidimensional topic. This thesis has provided a first indication of the ethical basis of adolescents’ health choices. This knowledge is topical and necessary, since health choices in adolescence have been recognized as special, but the previous knowledge focusing on the ethical basis has been limited. The results of this study highlight the multifaceted nature of the ethical basis of health choices, which are determined by adolescents’ individual premises and contextual opportunities to make decisions. In addition, the new HealthRDR-scale is an initial operationalization of the ethical basis of health choices, thus it provides a valuable foundation for the further examination of this phenomenon.

Adolescents’ perspective of the ethical basis of their health choices

The results reveal that adolescents are conscious of the ethical basis of their health choices and approaches to choice-making. Participants in the study acknowledged that adolescents can make unhealthy choices consciously, with the understanding of potential consequences. These choices may provide pleasure for example. In addition, participants recognized the wide variety of rights, duties and responsibilities and the importance of these values, as reported in previous studies (Kangasniemi et al., 2012; Hirjaba et al., 2015; Gauthier, 2005; Civanner & Arda, 2008). The findings of this study indicate that achievement and fulfilment of rights, duties and responsibilities support adolescents’ independence and activity as regards their own health. Rights, duties and responsibilities also help adolescents to cope in future life. Thus, emphasizing that the ethical basis of adolescents’ health choices is essential, since as upcoming adults and parents adolescents have an opportunity to influence not only on their own health and life, but also that of others and even future generations. In addition, based on the experiences of the study participants, rights, duties and responsibilities are integral to their social relationships and within society, by giving structure and keeping it functioning.

The results reveal that adolescents’ rights, duties and responsibilities are closely interlinked, but at the same time separate. Descriptions of duties and responsibilities overlap, both in the participants’ experiences reported in this study and in previous literature, with similar definitions, content and targets (Snelling, 2012). However, adolescents in this study, also acknowledged differences and their experience was that duties oblige or even force them to do certain things, whereas responsibilities are more permissive. In addition, according to the results of the preliminary testing of the HealthRDR, adolescents found it difficult to separate these concepts. Thus, these findings lead to the question of whether duties and responsibilities have the same meaning in adolescents’ everyday life and whether they need to be examined separately, even though they have different theoretical definitions.

The ethical basis of health choices was described in relation to adolescents’ everyday decisions. This means that adolescents’ health choices and rights, duties and responsibilities focused on practical issues such as the right to choose what to eat, the duty to control their own choices, for example intake of junk food and the responsibility to eat regularly. Thus rights, duties and responsibilities provided a multidimensional perspective on adolescents’ everyday choices such as eating. Based on the study findings, the ethical basis of adolescents’ health choices focused on basic needs, including nutrition, hygiene and education i.e. basic human rights (Nickel, 2017; United Nations, 1990a; UNESCO, 2010).
In addition, positive and negative rights and duties have been identified (Beauchamp & Childress, 2012; Wenar, 2015; Rawls, 1999). The results indicate that, adolescents have a positive right to get treatment from healthcare services and a positive duty to promote their own health. In addition, adolescents have the right to make their own choices without interference from others, which can be regarded as a negative right. On the other hand, there is also the negative duty to avoid harming others when making their own decisions. Thus, the ethical basis of health choices highlights adolescents’ role in relation to others.

Adolescents’ health choices related responsibility has been examined from the point of view of consequences (Snelling, 2012), and this also appeared in the results of this study. For example, adolescents can be held responsible for their weight. However, consequences of individual decisions are not only result of the individual’s choices (Michailakis & Schirmer, 2010). Thus holding adolescents responsible for their weight, would indicate that adolescents are also responsible for their individual premises and contextual opportunities (Cappelen & Norheim, 2005; Draper & Sorell, 2002; Snelling, 2015; Cappelen & Norheim, 2006). This is why universal individual responsibility over one’s own health has been regarded as impossible (Ahola-Launonen, 2015). Key questions are whether people are actually being held responsible for something that they have not caused (Marchman Andersen et al., 2013; Ahola-Launonen, 2015) and where the limits between adolescents’ individual and social responsibility should be placed.

However, the findings demonstrate that the ethical basis of adolescents’ health choices is determined by individual opportunities to make decisions. Individual premises can either promote healthy choices or encourage risky behaviour (Keeler & Kaiser, 2010; Atkins et al., 2010), depending on the adolescents’ individual characteristics and situational context (Keeler & Kaiser, 2010).

The results show that adolescents’ health choices are influenced by feelings and attitudes, but also by values, such as ecological and ethical principles, which are represented in the different ideologies adolescents follow, such as straight edging (THL, 2018a; Supski & Lindsay, 2017) or veganism (Radnitz et al., 2015; Greene-Finestone et al., 2008). These global ideologies can also be seen in adolescents’ lived experiences (Original publication II). For instance, adolescents stated that they chose to use a bicycle as much as possible for ecological reasons. Thus, they recognize individual duties and responsibilities in relation to global wellbeing and the future.

Results from this study highlight the fact that adolescents’ capacity to make autonomous choices are an important determinant of the ethical basis of their health choices. Adolescents considered themselves to be capable of making their own decisions and taking care of the corresponding rights, duties and responsibilities, although they also acknowledged the role of parents and healthcare professionals and their duties and responsibilities towards adolescents. However, it is noteworthy that the participating adolescents were a privileged group. They and their parents have had access to extensive healthcare services, such as child welfare clinics and school healthcare, and also free education, which undoubtedly improved their knowledge and capacities.

Adolescents’ capacity to make autonomous choices has been challenged (Brown et al., 2013; Walter & Ross, 2014; Blumenthal-Barby & Opel, 2018) and individual capacities vary. Adolescents can be incompetent at one point in time but competent at another to make their own decisions. (Beauchamp and Childress, 2012.) Therefore, it is recognized that assessing adolescents’ capacities can be difficult (Michaud et al., 2015).

To be judged as incompetent or vulnerable means that adolescents have lost some rights in relation to their choice-making, which also reduces their status as capable human beings (Beauchamp & Childress, 2012). It can also be challenging to define clear limits of competence and incompetence (Kangasniemi et al., 2012; Beauchamp & Childress, 2012). However, Draper and Sorell (2002) have proposed that vulnerability or incompetence does not insulate individuals from their duties and responsibilities. They are expected to be fulfilled in so far as is reasonable and taking into consideration capacities and circumstances. Thus duties and responsibilities do not mean that adolescents would do everything in their power to promote their own health.
Adolescents’ opportunities to achieve and fulfil health choices related rights, duties and responsibilities

The findings of this study highlight the fact that the ethical basis of adolescents’ health choices is founded on social and societal opportunities as identified in previous studies (Verstraeten et al., 2014; Brown et al., 2015; Wang et al., 2014; Couch et al., 2017).

According to Van Petegem and colleagues (2012), adolescents can make their own decisions because they personally want to or because they feel pressured by their parents. Adolescents’ opportunities to make their own decisions are often restricted (Ioannou, 2003), which was acknowledged by the participants in this study. In particular, parents were considered to influence adolescents’ choices by controlling their level of independence through setting rules. Adolescents may follow their parents’ rules to avoid feeling guilty for not being an ideal child, or by choice. In addition, adolescents’ independence and dependence on their parents can be the result of their own choices or the outcome of parental interference. (Van Petegem et al., 2012.) Thus parental control over adolescents’ opportunities to make their own choices is not only the result of parenting practices but can be also about adolescents’ own decisions.

The adolescents who participated in this study acknowledged their desire to make their own choices, but at the same time the need for someone to hold the final responsibility over their wellbeing. Similarly, parents usually want to protect their children from unnecessary harm. However, according to the results, overprotection can impede adolescents’ opportunities to achieve and fulfil their rights, duties and responsibilities. In addition, parental interest can easily overcome adolescents’ interests (Bester & Kodish, 2017). The parents’ task is to protect adolescents, but also to support them to manage independently in future. This requires information, capacity and will from parents. Adolescents should be provided with a safe and stable environment to learn to achieve and fulfil their rights, duties and responsibilities.

Parents’ capacities, however, vary and many adolescents are in the unfortunate position of receiving no support from their parents. Adolescents can also be assuming the role of carers within the family (Kavanaugh, 2014; Leu et al., 2018; McDougall et al., 2018; Smyth et al., 2011), although the results of this study suggest that adolescents should not be responsible for their parents or their problems. Thus, it is important to support parents so that they are able to ensure the best interests of their child (Purcell 2010), but also to make sure that adolescents are not burdened with duties and responsibilities that belong to adults.

The results reveal that adolescents have duties and responsibilities towards their peers, such as responsibility to take care of their wellbeing. In addition, peers were acknowledged to influence the ethical basis of adolescents’ health choices, by setting an example, exerting pressure and through their attitudes, but they did not mention the influence of social media (McCool et al., 2014; O’Keeffe & Clarke-Pearson, 2011; Moreno & Whitehill, 2014), despite the fact that a major part of adolescents’ peer communication happens on social media. Social media also influences the examples and ideas different actors present and makes global trends part of adolescents’ everyday life (O’Keeffe & Clarke-Pearson, 2011). These examples and trends can encourage adolescents’ to make healthy choices or unhealthy ones, depending on the content. For instance, YouTubers can have significant influence on adolescents’ decisions through their attitudes and the example they offer. On the other hand, pictures on social media can create twisted ideas of body image and provide incorrect information. This increases adolescents’ own responsibility to consider whether the examples and information they see are correct and worth following in terms of their own health choices.

Peers were not emphasized in the results of this study, as was the case in previous studies focusing on adolescents’ health choices (Crondahl & Eklund, 2012; Northcote, 2011; Lazzeri et al., 2014; Couch et al., 2017; Borraccino et al., 2016). This could be the result of the data collection methods that failed to capture this perspective. Alternatively, it may have been that the
participating adolescents chose not to highlight their peers’ influence on ethical issues. In addition, the focus of this study was on the ethical basis of health choices and not only on the decisions themselves, as in previous studies.

The results reveal that the ethical basis of adolescents’ health choices is also affected by the societal context and the opportunities society provides. Participants in this study acknowledged that they occupy a fortunate position being Finnish adolescents. They recognized that their opportunities for health choices were better than adolescents in some other countries. In addition, their responses indicated that they were interested in health related issues and thus they may have had better opportunities to make decisions compared to other adolescents in Finland. Inequalities between different adolescent groups highlight these differences in opportunities (Elgar et al., 2015; Moor et al., 2015). Therefore, it is important to examine adolescents’ perceptions more extensively with a variety of methods and target groups in order actively to support their opportunities.

The way adolescents are viewed in society has implications for how their rights, duties and responsibilities are addressed (Jones & Welch, 2010). Adolescents have often been regarded as a risk group who make irrational decisions (Brown et al., 2013). However, the results of this study indicate that they are a heterogeneous group and are conscious of their health choices and associated rights, duties and responsibilities. Classifying adolescents into morally acceptable and unacceptable categories if they do not fit into common social and adult norms can result in the risk of exclusion and marginalization (Brown et al., 2013; Spencer, 2013). It is worth noting that how adolescents are treated by society can also have implications for their willingness to achieve and fulfil their rights, duties and responsibilities.

The adolescents’ who participated in this study considered that adolescents have rights, duties and responsibilities in relation to healthcare services. However, one key question is how individual duties and responsibilities should be integrated into healthcare (Ahola-Launonen, 2015; Draper & Sorell, 2002; Civaner & Arda, 2008; Michailakis & Schirmer, 2010). A few issues were highlighted during the discussions about individuals’ role in healthcare. First, how individual health choices affect the outcomes of healthcare treatment, and whether those choices determine the cost assigned to the individual (Cappelen & Norheim, 2005; Civaner & Arda, 2008; Michailakis & Schirmer, 2010). Secondly, since there is a need to ration healthcare resources, due to economic limitations, the question is: on what level should individual health choices be taken into account in prioritization (Cappelen & Norheim, 2005; Schirmer & Michailakis, 2011; Civaner & Arda, 2008)? However, based on the findings of this study, society holds the final responsibility for its’ citizens and health services, which are a basic requirement for the achievement and fulfillment of rights, duties and responsibilities. That is why, limiting access to health services and healthcare professionals’ knowhow could impede adolescents’ opportunities to achieve and fulfil their rights, duties and responsibilities.

Significance of HealthRDR-scale

The HealthRDR-scale that was developed during this research is useful for the examination of adolescents’ perceptions in wider and different adolescent groups. Thus, using the scale can help to identify and compare adolescents’ perceptions of the importance and their opportunities to achieve and fulfil their health choices related rights, duties and responsibilities. This also facilitates recognition of potential inequalities between different adolescent groups both nationally and internationally. In addition, the HealthRDR-scale could be further developed to be used with other groups, such as parents, teachers or healthcare professionals.

However, the validity and reliability testing of the scale was preliminary and there is a clear need for further testing and development. In future, the concepts should be clarified further, especially the relationship between duties and responsibilities which should be specified by using both qualitative and quantitative methods. The need for further elaboration was indicated in the high Cronbach’s alpha correlation coefficients. In addition, none of the items in the sub-scales of duties and responsibilities were excluded. Nevertheless, the scale is worth further development.
Health promotion in supporting the ethical basis of adolescents’ health choices

The findings of this study indicate that adolescents need support for their health choices, as acknowledged previously studies (Melnyk et al., 2006; Kelly et al., 2011; Risjord, 2014), and health promotion is key task of society. Determinants of health that covers aspect of individual, social and cultural and environmental factors have been clearly identified (Lazzeri et al., 2014; MacPhail & McKay, 2016; Dahlgren & Whitehead, 1991; Rathmann et al., 2015; WHO, 2018c). According to the findings of this study, the factors that are linked to the ethical basis of adolescents’ health choices follow these health determinants. However, it is important to identify determinants of adolescents’ health choices related rights, duties and responsibilities in a more detailed way. This is needed to strengthen health promotion activities in order to support adolescents in achieving and fulfilling their rights, duties and responsibilities. As with other health promotion activities, the core questions are when health promotion activities should be implemented and whether to target all adolescents or only special groups. From the point of view of justice, it would be fair to support those groups whose opportunities to achieve and fulfil their health choices related rights, duties and responsibilities are restricted due to issues such as their competence, health status or SES (Blacksher et al., 2010). This would promote equality in opportunities (UN, 2013) and also in the achievement and fulfillment of rights, duties and responsibilities. However, influencing adolescents’ values and ideologies is not straightforward and it requires emphasis on both adolescents and families, as well as healthcare and society.

According to the study results, the ethical basis of adolescents’ health choices should be discussed openly in different healthcare settings and with adolescents themselves; this would improve adolescents’ opportunities to achieve and fulfill their rights, duties and responsibilities. It is essential to discuss clearly what kind of rights, duties and responsibilities adolescents have in different healthcare contexts. In addition, it is noteworthy that the social function of health choices related rights, duties and responsibilities cannot be fulfilled if adolescents do not understand what kind of actions in practice are allowed or required of them (Snelling, 2012). Thus, an important part of health promotion is to provide information for adolescents and their parents. This is an essential task of healthcare and society (Iachini et al., 2015) and could be delivered, for example, in schools as a part of the curriculum of health education and by the school nurses. On the other hand, adolescents can also disregard information provided if it is considered meaningless (Grabowski & Rasmussen, 2014). It seems that although adolescents are conscious of their health choices and have information in relation to rights, duties and responsibilities, information alone is insufficient to influence their decisions; it must be provided in a way that is relevant for adolescents.

Healthcare professionals should be able to assess adolescents’ individual resources with respect to health choices (Duncan et al., 2007). Adolescents’ who do not take personal responsibility can be vulnerable because they consider their health status and illness to be out of their control (Audulv et al., 2010). Such individuals need particular attention and support from healthcare providers. However, professionals may need further education to be able to support adolescents and their parents. For example, educational needs could focus on the adolescents’ health choices related rights, duties and responsibilities and acknowledging them in practice (Sheikhtaheri et al., 2016). In addition, there is a need for further studies to determine meaningful ways to support adolescents in their ethical choice-making.

Society can improve adolescents’ abilities by ensuring participation opportunities. Participation has been identified as the right of adolescents in both the current study and previous literature (WHO, 2017b; WHO, 2014a; Waterston & Goldhagen, 2007; Jones & Welch, 2010). This study also highlighted the role of society in providing opportunities for health choices by modifying taxes and markets. This could be done by favouring healthy choices, for example by targeting taxes on substances and high energy intense foods. In addition, society can create opportunities for healthy choices by structuring living environments so that they encourage
exercise and enable, for example, cycling instead of using public transport. Extracurricular
activities are important for adolescents, but participants of this study stated that their
opportunities to engage in them could be limited due to distances or financial resources. The
population based health promotion approach has been found to have promising results on
adolescents’ health choices. The approach focuses overall on communities as a whole and aims
to reduce substance use among adolescents through targeting policymakers, healthcare
professionals, schools and parents. This approach, when used consistently, seems to produce
more sustainable results on adolescents’ health choices compared with programmes carries out
for a fixed period. (Kristjansson et al., 2016.) This should also be taken into account when
designing and developing services to support adolescents’ health choices related rights, duties
and responsibilities.

In order to achieve and fulfil their own rights, duties and responsibilities, adolescents need to
be motivated and also to care for themselves, their community and society. Adolescents will care
more for communities when social conditions are translated into the hope that achieving and
fulfilling their own rights, duties and responsibilities will enable them to live well. (Buchanan,
2000.) This means that the pursuit of rights, duties and responsibilities gives hope of individual
or social benefits. If societal conditions fall short then, according to Buchanan (2000), individuals
will not care how their health choices might influence others and thus will not engage with their
own rights, duties and responsibilities.

However, health promotion and an emphasis on healthy choices can threaten adolescents’
autonomy by limiting it. Individual responsibility can also be regarded as a risk to autonomy and
adolescents’ freedom. This suggestion is based on the assumption that personal freedom is
diminished when adolescents have a duty to make health choices in accordance with societal
interest or recommendations. (Nordström et al., 2013.) The participants in this study highlighted
the fact that other people can support and motivate them, but not force them into particular
decisions or make choices on their behalf. This has also been noted in a previous study (Iachini et
al., 2015). According to Bryan and colleagues (2016), framing health choices as a way to exercise
autonomy can enhance adolescents’ health decisions. Nevertheless, adolescents’ health
promotion requires careful balance, with support for autonomy and protection as well as guiding
adolescents towards ethical health choices.

6.2 VALIDITY AND RELIABILITY OF THE STUDY

Mixed method studies using a variety of approaches must be rigorously conducted, following
method-specific criteria. Thus, the validity and reliability of the sub-studies is examined
separately. To strengthen the overall quality of this study, the rationale, design and separate sub-

Second page appears to be missing.
and Elston, 2004; Scott, 2004; Mogalakwe, 2006.) The analysed documents were developed for a purpose other than research and thus they provided only partial information pertaining to the research topic (Abbott et al., 2004). However, they were unaffected by the research process and lack of reflectivity by the researcher (Bowen, 2009; Abbott et al., 2004; Miller & Alvarado, 2005).

The representativeness of the analysed documents was improved by using systematic selection strategies (Davis, 2012; Miller & Alvarado, 2005) and by conducting searches of the official STM database and using their existing categorization. The suitability of the inclusion criteria was reaffirmed in the research group, and by consulting specialists in a social- and healthcare policy arena. However, some relevant documents may have been missed due to the indexing system.

The meaning of the analysed documents refers to the literal clarity and interpreting the descriptions of them (Scott, 2004). The analysed documents were all in electronic format and in the researchers’ mother tongue, which improved the literal understanding. Analysis of the data was finalized and confirmed in collaboration with the research group to decrease the subjectivity of the interpretations and analysis.

**Integrative review (Original publication II)**

To reduce bias and enhance rigour, systematic methods were used to identify relevant articles that focused on adolescents’ health choices related rights, duties and responsibilities (Whittemore & Knafl, 2005). In addition, manual searches were conducted to decrease the risk of search bias. Broad search terms were used to improve the quality of the searches (Cooper, 1982), although some other combinations of search terms could also have been used. The search strategy and search terms were designed in collaboration with a library informatics professional to improve the methodological rigour. The selection of original studies and quality evaluation were conducted independently by two researchers to improve the validity (Whittemore & Knafl, 2005). Although the quality of the selected original studies varied, all studies were included. Method-specific quality appraisal was only used to describe the methodological aspects of the studies (Whittemore & Knafl, 2005).

There were 18 eligible original studies included in this study and all selected studies focused on issues other than adolescents’ health choices related rights, duties and responsibilities. This highlights the need for further study, but could also have affected the credibility of the study findings (Graneheim & Lundman, 2004).

There is always some degree of interpretation involved when analysing text qualitatively (Graneheim & Lundman, 2004). To decrease the subjectivity of the data analysis, the analysis was conducted by one researcher to the sub-category stage, and the final analysis was completed in collaboration with the research team.

**Focus groups with semi-structured interviews (Original publication III)**

To strengthen the trustworthiness of the focus groups, an interview guide was developed based on the current literature and following a framework for the development of semi-structured interviews. The interview guide was piloted to confirm its relevance and to test its implementation. Internal testing consisted of an evaluation of the interview guide by the research group, which was complemented by field-testing. (Kallio et al., 2016.) Field-testing was conducted with potential study participants (Turner, 2010). As a result of the field-testing, only minor changes were made to the questions to ensure clarity.

Trustworthiness in qualitative studies refers to how well study findings reflect the actual opinions of the participants (Murphy & Yeldier, 2010; Cypress, 2017). Trustworthiness was strengthened by trying to create a good rapport through an open atmosphere during the focus groups. Pre-existing groups were used in order to ensure the adolescents were comfortable talking to each other (Redmond & Curtis, 2009). Group sizes were kept relatively small to enhance participants’ opportunities to participate in discussions (Gibson, 2007; Côté-Arsenault & Morrison-Beedy, 2005; Redmond & Curtis, 2009). The participants were encouraged to engage
during focus group sessions (Jayasekara, 2012), however, it is possible that participants responded to questions in ways that they believed were socially acceptable when discussing the ethical basis of health choices (Norris et al., 2012) or due to peer approval (Jayasekara, 2012; Norris et al., 2012).

The number of focus groups was determined by the content of the collected data. Data collection was continued until the adolescents’ descriptions started to repeat and no new themes emerged (Guest et al., 2006; Carlsen & Glenton, 2011; Redmond & Curtis, 2009). This occurred after interviews with 11 focus groups, but to confirm this, three more focus group interviews were conducted. Previously, large numbers of groups have been highlighted as a study limitation, due to the large amount of data (Carlsen & Glenton, 2011), but in this study 14 groups were conducted. Previously, large numbers of groups have been highlighted as a study limitation, due to the large amount of data (Carlsen & Glenton, 2011), but in this study 14 groups were conducted. Previously, large numbers of groups have been highlighted as a study limitation, due to the large amount of data (Carlsen & Glenton, 2011), but in this study 14 groups were conducted.

Interviewers pre-understanding of the topic may have affected the additional questions presented during the interviews, selection of the meaning units and the phenomenological analysis. Using this method there are always multiple ways to interpret the text (Lindseth & Norberg, 2004), which is why the analysis was completed and confirmed in collaboration with the whole research team.

Credibility is one aspect of trustworthiness and focuses on how participants’ experiences fit the researchers’ representation of the study subject (Murphy & Yelder, 2010). In this study credibility was strengthened through the hermeneutical process of verifying interpretations by going back to the participants’ original statements during all phases of analysis. In addition, credibility of the study findings was increased by presenting authentic quotations from the participants (Elo & Kyngäs, 2007).

Transferability refers to the extent to which the research findings can be transferred to other groups (Koch, 2006), but in this study, where the focus was on participants’ lived experiences, generalizations were not the goal (Murphy & Yelder, 2010). The results highlighted perspectives of one adolescent group. It is worth noting that participation was voluntary. This means that it is possible that participants were especially interested in promoting their own health. In addition, all participants were Finnish and thus in an advantageous position with respect to their premises and societal context; further study is needed in order to draw more general conclusions.

Scale development (Original publication IV)
The HealthRDR-scale to measure adolescents’ health choices related rights, duties and responsibilities was developed following a systematic multi-method instrument development processes (DeVellis, 2017; Streiner et al., 2015) and using different data sets for the development of the items. The scale development processes and measures taken to assess validity and reliability are presented in section 4.5 and the results in section 5.4.

The items comprising the scale were developed based on previous knowledge derived either from the previous sub-study or other relevant literature (DeVellis, 2017; Streiner et al., 2015), with the emphasis on literature focusing on health related issues. All items were worded positively to decrease measuring error (DeVellis, 2017; Rattray & Jones, 2007). A systematic instrument development process strengthens the content validity of the scale (Rattray & Jones, 2007; DeVellis, 2017; Streiner et al., 2015).

Content validity was assessed using an expert panel that consisted of adolescents, school nurses and researchers. The panel comprised 23 participants, thus decreasing the chance of agreement bias that may have occurred with fewer than ten reviewers (Polit et al., 2007). In addition, a heterogeneous panel supports content validity and strengthens scale relevance for the target population (Zamanzadeh et al., 2015; Schilling et al., 2007). However, expert assessment is subjective (Zamanzadeh et al., 2015) and thus final removal and revision of the items was conducted based on discussions in the research group and conceptual understanding (DeVellis, 2017). Both CVI and CVR were used to assess each item to strengthen the method. According to Polit et al. (2007) I-CVI 0.78 can be considered good for content validity and items with a lower I-
CVI were either revised or deleted. CVR was compared to a significance level that also considers the number of reviewers (Ayre & Scally, 2014).

Recruitment for the preliminary testing was conducted using electronic and personalized methods to strengthen the data collection (Bull et al., 2008; James et al., 2017). The voluntary nature of participation was considered to improve the trustworthiness of the responses. However, the length of the scale may have affected adolescents’ responses (DeVellis, 2017) resulting in missing values, which may have affected validity of the results (Streiner et al., 2015). In addition, the large number of items may explain the high values of Cronbach’s alpha coefficient. Cronbach’s alpha values over 0.9 can indicate that there is redundancy with the items (DeVellis, 2017; DeVon et al., 2007), although some redundancy is needed for internal consistency (DeVellis, 2017). Therefore, further reliability and validity testing is needed to validate the HealthRDR-scale. For example, factor analysis is needed to assess the construct validity and to refine concepts.

## 6.3 ETHICAL CONSIDERATIONS

From an ethical point of view, it was reasonable to focus on adolescents’ health choices related rights, duties and responsibilities because the knowledge gap in relation to the research topic is clear. In addition, adolescents’ rights, duties and responsibilities have been described as unequal between different ages and groups, nationally and globally. Thus, there is a clear need for further understanding of these issues.

*Research integrity*

Responsible research practices were followed in all phases of the study (Wager & Wiffen, 2011), according to the World Medical Association Declaration of Helsinki (World Medical Association, 2013) and the guidelines of the Finnish Advisory Board on Research Integrity (TENK, 2012). These practices included the study being based on relevant scientific literature and there being careful design and honesty during whole research process. Phases I and II of the first sub-study did not need any external committee approvals. For phase III and the second sub-study, ethical approval from the Committee on Research Ethics of the University of Eastern Finland (no 17/2015, no 19/2017) and from the school district and school principals was obtained. In addition, approval from the Health district was gained for sub-study II.

*Voluntariness and information*

Informed consent was obtained during all empirical data collection phases (Original publications III and IV). Participants were asked to sign a consent form either in writing during the qualitative data collection phase or electronically in the quantitative phase. Based on Finnish law (Medical Research Act 488/1999) in this type of study adolescents 15 or older could decide for themselves about research participation (Flanagan et al., 2015). However, parents were also informed about the study via an information letter sent by the school principal (Original publications III and IV) (Diekema, 2006; Medical Research Act 488/1999).

Potential participants were informed orally and by letter about the study and advised that participation was voluntary. In addition, the researcher’s contact information was made available for further questions. The study information was reiterated at the beginning of each focus group and quantitative data collection sessions and was also presented in writing at the beginning of the quantitative data collection form. (Diekema, 2006.) Adolescents were told that they could leave any questions unanswered should they wish (Medical Research Act 488/1999; World Medical Association, 2013) and that participation could be discontinued at any point during the data collection (Diekema, 2006); however, the data collected at that stage would be used as a part of the research data in the focus group study (Original publication III). None of the participants withdrew. At the beginning of the focus group sessions participants were reminded that they...
could say whatever came to mind and that the answers would not be rated (Mack et al., 2009). Data collection was conducted during the school day on the school premises.

**Confidentiality and anonymity**

With the document analysis for the public steering documents and integrative review of the scientific literature (Original publications I and II), there were no issues of privacy, anonymity or confidentiality, because the data were publicly available (Abbott et al., 2004). Participants in the empirical data collection phases were informed about the measures taken to secure confidentiality and anonymity (Personal Data Act 523/1999; World Medical Association 2013) and that the data gathered were only to be handled by the research group (Mack et al., 2009). Focus group participants were informed that the interviews would be recorded. To secure anonymity and confidentiality, the interviews were coded, and the data were gathered and analysed without a single participant being identified. The technology used to record written answers was an electronic sheet, *E-Lomake*, which uses a secure internet connection and saves data to the server of the University of Eastern Finland. All collected data were stored on a password-secured computer and external hard disc.

**Conclusion**

The study provides new knowledge about the ethical basis of health choices, by illustrating the focus of and the multifaceted social context of adolescents’ rights, duties and responsibilities. Health choices related rights, duties and responsibilities are part of adolescents’ everyday life and they are targeted towards practical tasks, but also towards others and society. The importance of the ethical basis of adolescents’ health choices is undeniable for their health and independence, but also has wider implications for those close to adolescents and even for society. However, adolescents’ everyday life is variable and their opportunities to achieve and fulfil their rights, duties and responsibilities are different. Thus, further attention should be placed on the ethical basis of health choices by researchers, practitioners and health policy-makers, in order to promote adolescents’ health and wellbeing.

Conclusions derived from the main findings

1. The ethical basis of adolescents’ health choices is essential for the promotion of adolescents’ own health, but it also has implications for other people close to them, the population and the functioning of society.

2. Adolescents’ health choices related rights, duties and responsibilities highlight different views of adolescents’ everyday practices. These rights, duties and responsibilities are interlinked, but separate.

3. Adolescents’ opportunities to achieve and fulfil their rights, duties and responsibilities are influenced by individual premises, social circumstances and societal context, which vary and can create inequalities with respect to making such choices.

4. Parents’ role is essential in determining adolescents’ health choices and opportunities for them. Therefore, an emphasis on health promotion should also be placed on parents and family, in order to support the development of adolescents’ independence within a secure environment.

5. The HealthRDR-scale is worthy of development and offers a basis for the further analysis and operationalization of rights, duties and responsibilities. In addition, it forms a foundation for wider empirical examinations of the study topic with different target groups.

6. Society and healthcare are key to creating positive opportunities for healthy choices and achieving and fulfilling rights, duties and responsibilities. This includes accessible services and professionals’ knowhow but also environmental, political and economic decisions that take adolescents’ health promotion and their rights, duties and responsibilities into account.

**Suggestions for further research**

1. To examine further the ethical basis of adolescents’ health choices from different points of view and different population groups in order to support adolescents and their families to achieve and fulfil their rights, duties and responsibilities.
7 Conclusion

The study provides new knowledge about the ethical basis of health choices, by illustrating the focus of and the multifaceted social context of adolescents’ rights, duties and responsibilities. Health choices related rights, duties and responsibilities are part of adolescents’ everyday life and they are targeted towards practical tasks, but also towards others and society. The importance of the ethical basis of adolescents’ health choices is undeniable for their health and independence, but also has wider implications for those close to adolescents and even for society. However, adolescents’ everyday life is variable and their opportunities to achieve and fulfil their rights, duties and responsibilities are different. Thus, further attention should be placed on the ethical basis of health choices by researchers, practitioners and health policy-makers, in order to promote adolescents’ health and wellbeing.

Conclusions derived from the main findings

1. The ethical basis of adolescents’ health choices is essential for the promotion of adolescents’ own health, but it also has implications for other people close to them, the population and the functioning of society.
2. Adolescents’ health choices related rights, duties and responsibilities highlight different views of adolescents’ everyday practices. These rights, duties and responsibilities are interlinked, but separate.
3. Adolescents’ opportunities to achieve and fulfil their rights, duties and responsibilities are influenced by individual premises, social circumstances and societal context, which vary and can create inequalities with respect to making such choices.
4. Parents’ role is essential in determining adolescents’ health choices and opportunities for them. Therefore, an emphasis on health promotion should also be placed on parents and family, in order to support the development of adolescents’ independence within a secure environment.
5. The HealthRDR-scale is worthy of development and offers a basis for the further analysis and operationalization of rights, duties and responsibilities. In addition, it forms a foundation for wider empirical examinations of the study topic with different target groups.
6. Society and healthcare are key to creating positive opportunities for healthy choices and achieving and fulfilling rights, duties and responsibilities. This includes accessible services and professionals’ knowhow but also environmental, political and economic decisions that take adolescents’ health promotion and their rights, duties and responsibilities into account.

Suggestions for further research

1. To examine further the ethical basis of adolescents’ health choices from different points of view and different population groups in order to support adolescents and their families to achieve and fulfil their rights, duties and responsibilities.
2. To further develop and test the new HealthRDR-scale to validate it in national and international contexts. This requires further understanding of the concepts of health choices related rights, duties and responsibilities in order to clarify them further.

3. To identify and examine determinants of the ethical basis of adolescents’ health choices and their impact, in order to create targeted health promotion interventions.

4. To investigate how to support professionals in acknowledging, assessing and enhancing adolescents’ health choices related rights, duties and responsibilities.
8 References


Bester, J. & Kodish, E. 2017. Children are not the property of their parents: the need for a clear


Cypress, B.S. 2017. Rigor or reliability and validity in qualitative research: perspectives, strategies, reconceptualization, and recommendations. *Dimensions of Critical Care Nursing,*
36(July/August): 253–263.


EU. 2007. *EU guidelines for the promotion and protection of the rights of the child.*


*Medical Research Act 488/1999*.


https://plato.stanford.edu/cgi-bin/encyclopedia/archinfo.cgi?entry=rights-human
24 April 2018.


TENK. 2012. Responsible conduct of research and procedures for handling allegations of misconduct in Finland. Helsinki: Finnish Advisory Board on Research.


United Nations. 1984. Convention against torture and other cruel, inhuman or degrading treatment or punishment.


This study focuses on the ethical basis of adolescents’ health choices and introduces a new scale to measure adolescents’ conceptions of their health choices related rights, duties and responsibilities. The results illustrate the focus and multifaceted context of the ethical basis of adolescents’ health choices. However, the phenomenon needs further attention from research and health promotion activities in order to promote adolescents’ health.