



Aalborg Universitet

AALBORG UNIVERSITY  
DENMARK

Newly arrived refugees' perception of health and physical activity in Denmark

Ryom, Knud; Simonsen, Camilla Bakkær; Rau, Stefan Runge; Maindal, Helle Terkildsen; Agergaard, Sine

*Published in:*  
Journal of Migration and Health

*DOI (link to publication from Publisher):*  
[10.1016/j.jmh.2022.100111](https://doi.org/10.1016/j.jmh.2022.100111)

*Creative Commons License*  
CC BY-NC-ND 4.0

*Publication date:*  
2022

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*  
Ryom, K., Simonsen, C. B., Rau, S. R., Maindal, H. T., & Agergaard, S. (2022). Newly arrived refugees' perception of health and physical activity in Denmark. *Journal of Migration and Health*, 6, Article 100111. <https://doi.org/10.1016/j.jmh.2022.100111>

#### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

#### **Take down policy**

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.



## Newly arrived refugees' perception of health and physical activity in Denmark

Knud Ryom<sup>a,\*</sup>, Camilla Bakkær Simonsen<sup>b</sup>, Stefan Runge Rau<sup>a</sup>, Helle Terkildsen Maindal<sup>a,c</sup>, Sine Agergaard<sup>b</sup>

<sup>a</sup> Department of Public Health, Section for Health Promotion and Population Health, Aarhus University, Bartholins Allé 2, Aarhus 8000, Denmark

<sup>b</sup> Department of Health Science and Technology, Aalborg University, Aalborg, Denmark

<sup>c</sup> Steno Diabetes Centre Copenhagen, Health Promotion, Copenhagen, Denmark

### ARTICLE INFO

#### Keywords:

Refugees  
Health  
Physical activity (PA)  
Transnational migration perspective  
Health promotion

### ABSTRACT

Refugees health status after receiving asylum in their new country is often poor, both physical and mentally. Despite that, European countries rarely offer programmes specifically targeted health and health behaviour for newly arrived refugees. This study investigated newly arrived refugees' perspective on health and in particularly physical activity (PA) upon granted asylum in Denmark. A transnational migration perspective provides the theoretical framework in this study. Semi-structured interviews with twenty newly arrived refugees provide data for the interpretative phenomenological analysis (IPA). Health manifests itself in varied ways to the newly arrived refugees and a broad and holistic perspective on health, was evident. Overall PA had important benefits, such as pain relief, better physical fitness, lose weight, a stronger body, to stay active, cater to mental health and in general something of interest to the newly arrived refugees. However, the informants experienced several barriers for doing PA and living healthy lives. Time, pain, low income, job insecurity, mental strain, discourse of health and PA (health promotion), external expectations and demands (municipality and government in Denmark), precariat living conditions and general worrying were amongst the most explicit barriers. In addition, the question of how the newly arrived refugees are positioned in their families seems vital, as patriarchal family structures seem to prevent some from doing PA. Based on the results, we underline the importance of involving refugees in developing health promotion activities while considering of their unique experiences and transnational background.

### Introduction

A rising proportion of the world's population is displaced (United Nations, 2019). Amongst them a large number are refugees fleeing due to wars or unrest, ultimately ending in asylum systems throughout the world. Such precarious situations challenge refugees' state of health (Gerritsen et al., 2004; Eckstein, 2011), as well as present new challenges for health care system in the receiving countries. Thus, WHO recently published a stance emphasizing that promoting the health of refugees is a major challenge to the European health care system (WHO, 2019).

Studies show that the health status of newly arrived refugees is

generally poorer than that of the receiving population in Western societies, and their health condition is markedly deteriorating in the period when responses to asylum applications are expected (Gerritsen et al., 2004; Eckstein 2011). Thus, newly arrived refugees, which have gained asylum but only temporary residence permit,<sup>1,2</sup> often start their lives in Denmark with a poor state of mental and physical health which can worsen their opportunities to settle. Early efforts targeting health promotion<sup>2</sup> and community involvement (e.g. through physical activity) may prove to be preventive against lifestyle diseases which, statistically, affect this target group more severely than the majority population (The Danish Health Authority, 2011). However, health care services for newly arrived refugees in Denmark are mainly centred on medical

\* Corresponding author.

E-mail address: [knudryom@ph.au.dk](mailto:knudryom@ph.au.dk) (K. Ryom).

<sup>1</sup> In Denmark asylum are given temporary, due to the so-called paradigm shift in Danish legal politics (Glorius and Doornik, 2020).

<sup>2</sup> Health promotion is a process that enables the individual to deal individually and collectively as part of groups with the conditions, that affect their own health and thus improve the group's health status (Iversen, 2002; Vallgård, 2005)

health examinations and crisis psychology services for people with post-traumatic stress or other serious mental disorders. No formal health promotion strategies towards newly arrived refugees currently exist in Denmark.

In health promotion programmes for refugees, physical activity (PA) is most often a central element (Whitley et al., 2016; Spaaij 2011; Jeanes et al., 2015). However, such programs are often not aligned with the backgrounds and narratives of specific groups of refugees (Agergaard, 2018). Contrary, such programs tend to install an ethno-national understanding that focuses on only one side of the migration process, namely immigration into the receiving society (Grzymala-Kazłowska and Phillimore, 2018). Thus, many programs do not consider the significance of refugees' and migrants' embodied experiences and multiple connections to not only new societies but also country of origin (Dahinden, 2010). Furthermore, limited research exists on refugees' perspectives on health and PA. Consequently, this study aims to generate understanding of the newly arrived refugees' perceptions and needs of health and PA.

### *Ethnic minorities' health status in Denmark*

In general few studies of only refugees' health status exist in Denmark. However, if we include a broader perspective of non-Western ethnic minorities, more is known. The prevalence of long-term diseases especially cardiovascular disease and diabetes is generally higher amongst persons with ethnic minority background compared with persons with ethnic Danish background (Andersen et al., 2016; Hempler et al., 2011; Winther, 2018). The differences are most marked amongst people born in Pakistan, Palestine/Lebanon, Turkey, Somalia and Ex-Yugoslavia (Andersen et al., 2016; Jervelund et al., 2017). For cancer, an inverted pattern is seen: citizens with a non-Western ethnic background have a lower risk of being diagnosed with breast, gynaecological, oral, pharyngeal and laryngeal cancer, as well as testicular, colorectal and lung cancer than persons with ethnic Danish background (Jervelund et al., 2017).

Approximately 22–48% of the citizens in Denmark with ethnic minority backgrounds, report poorly self-rated health, while only 10% citizens with ethnic Danish background report poor health (Singhammer, 2008). Citizens with ethnic minority backgrounds and especially refugees, generally have poorer mental health compared with people with an ethnic Danish background (Jervelund et al., 2017). In relation to self-reported mental illnesses, a higher prevalence of depression/anxiety is seen (Singhammer, 2008). Citizens with ethnic minority background are at higher risk of developing schizophrenia and schizophrenia spectrum disorders, and several have at least one psychiatric disorder (Canter-Graae and Pedersen, 2012). Furthermore, citizens with refugee background is a particularly vulnerable group to poor mental health due to traumatic experiences in their country of origin, during migration and in the asylum phase (Norredam et al., 2010). Last but not least, ethnic minorities in general are less physical active compared to the majority population in Denmark (Larsen et al., 2018). PA levels are known to effect mental health positively (Biddle, 2016). Hence, PA and health related concerns are evident both for ethnic minorities as a whole (Hempler et al., 2020), but especially newly arrived refugees, who are in a particular precariat situation when granted asylum.

### *A western ethnocentric perspective on health and PA*

Some researchers suggest that there is a tendency in many Western societies to have an ethnocentric perspective on refugees, meaning that Western countries perceive their own culture as the standard from which migrants (such as refugees) are judged upon in terms of cultural values, norms and habits (Agergaard, 2018). This tendency is particular important in a health promotion perspective, where many PA schemes and leisure activities are based on a one-way process where refugees are expected to adapt to existing offers (Agergaard, 2018).

A blind trust in superiority of western culture may be a particular problem in health promotion (such as sports programs and leisure activities) in non-western cultures (Grzymala-Kazłowska and Phillimore, 2018). In Denmark there is a public awareness of physical, mental and social benefits of PA as important in everyday life, why PA is often understood as inherently good. However, it might be disruptive to have an ethnocentric Western perspective, as different understandings and norms (and experiences) of health and PA across cultures are considered an important factor (Caperchione et al., 2013; Langøien et al., 2017). However, such differences are often unspoken in health promotion activities, which calls for further studies, like the present study to shed light on cultural diversity as well as cultural competence in health promotion (Jongen et al., 2017). Making meaningful health promotion build on thorough in-depth knowledge of refugees' perception and understanding of health and physical activity important within public health.

### **Theoretical framework**

The transnational migration perspective of Nina Glick Schiller and colleagues (1995) and Janine Dahinden (2012) contribute by pointing to the ways in which former refugees and migrants often feel that they belong to several nations and localities at the same time. As a response to the dominant political and academic focus on immigration into the arriving nation states, Nina Glick-Schiller and colleagues (1995) has coined the concept transmigrants. Transmigrants are immigrants whose daily lives depend on multiple and constant interconnections across international borders and whose public identities are configured in relationship to more than one nation-state (Schiller et al., 1995).

With this perspective, newly arrived refugees should be considered as groups and individuals that continue to have and develop connections that cut across nation-state borders. Further, studies by Janine Dahinden (2012) illustrate that transnational connections may not in themselves hinder minority ethnic groups and individuals in integrating into new nation states. Rather, studies indicate that groups and individuals with strong transnational connections are also the ones with strong local connections.

Dahinden (2009) distinguish between two dimensions of transnationalism, which roughly translated is the distinction between network transnationalism and what she terms transnational subjectivity. While the first dimension includes the transnational social networks, the transnational subjectivity refers to the cognitive classifications of a person's membership and belongings in transnational space. Thus, we find these two dimensions important to understand in order to grasp the transnational lives of newly arrived refugees (Dahinden, 2009).

### **Method**

The findings presented in this article are of qualitative origin aiming to explore and understand the meaning derived to PA and health by the informants (Creswell, 2013). In order to present findings that can be useful in a broader sense, while considering that each setting and context is unique, a qualitative adaption of generalization has been used (Kvale, 1996). This study is based on numerous interviews, to create a deep understanding of newly arrived refugees' perception of health and PA.

Before interviewing, fieldwork inspired by ethnographic studies at the local language school was carried out (Willis, 1993). The reason for applying this approach was too familiarized and to understand a central arena in the daily lives of the newly arrived refugees in Silkeborg (Thorpe, 2012). The setting, Silkeborg (described later), represent a small city (<50.000) in Denmark, which is a common settling area for newly arrived refugees granted asylum. As all newly arrived refugees are obligated to follow language courses learning Danish, as part of their introduction program.

Getting an impression of the environment as well as an intuitive

sense for the data was important, especially concerning the subsequent analysis of data (described later). Several visits to the language centre in Silkeborg were made, where the researchers both observed and participated in the language lessons while also learning about the environment outside the classes.

### Setting and informants

Silkeborg Municipality represent the formal setting of the study. Historically the municipality has had a low percentage of refugees, but this has changed in the recent year where the municipality is receiving a (to them relatively) large number of refugees (2014–2018, 500+ a year) allocated by the Danish state. In Silkeborg Municipality the newly arrived refugees are offered a three-week program introducing them to the job market, the social conditions and the health care system in Denmark. Aside from these three weeks, there are not any formalized health promotion efforts besides a voluntary health check at their general practitioner, which is rarely used by newly arrived refugees in Silkeborg (nor the rest of Denmark). The data collection took place at the local (Danish) language centre in Silkeborg and the contact was approved and facilitated by the administration of the municipality and the leaders at the language centre.

Our sampling strategy were to include the following categories; a) both male and female, b) representing the large refugee groups of the area, c) both families and non-family background and d) all age-group. Based on these criteria's we included 20 informants (9 males and 11 females) with newly arrived refugees status, age from 23 to 64 years, some with families in Denmark, and some without. Geographical they labelled themselves as Syrians, Kurdish (from both Syria and Iraq) and Eritrean, which also represent the largest refugee groups in Silkeborg.

### Interview

In this study, semi-structured interviews were used with prepared questions, but also allowing the possibility to discuss topics that arose in the meeting between informant and interviewer (Brinkmann and Kvale, 2018). Prior to the interviews, an interview guide had been developed and tested with pilot-interviews (in particular to avoid language barriers) before the data collection started (Brinkmann and Kvale, 2018).

Furthermore, the interviews questions were supplemented with picture material illustrating a variety of situations, expressions and feelings (e.g. everyday life walking, socializing etc.). The purpose of the picture material was to assist the participants in initiating reflections on a phenomenon, which to some may be difficult to describe. However, the pictures also functioned as an "icebreaker" in the conversations and helped the participants to elaborate their understanding (Bignante, 2010). In addition, the images were a help to visualize the participants thoughts and enable a unified sense of health and PA between researcher and informant (Bignante, 2010).

All interviews took place at the language centre which represented a familiar environment to the newly arrived refugees. They were conducted in 2018–19 and the average duration of each interview was approximately 30–50 min. Semi-structured interviews were chosen in order to gain insight into the newly arrived refugees' experiences and understandings of health and PA (Brinkmann, 2013). Interviews were recorded and transcribed verbatim. Due to language difficulties, some quotes have been rewritten to ease reading and understanding (Brinkmann and Kvale, 2018). Informed consent was received from all informants and interpreters.

### Interpreters

Together with the language centre, it was decided that a relatively abstract phenomenon such as health and PA framing the interviews, required the support of an interpreter. The use of interpreters poses some methodological challenges that may have consequences for the

interview (Edwards, 1998; Lou, 2008; Squires, 2009). A major challenge is the "unevenness" of the translation and the suspicion that "something is lost" (Lou, 2008). Another challenge is to find the right match between the interpreter and the informant, and thus creating the basis for a good dialogue. Therefore, it is necessary amongst other things to assess the interpreter's social characteristics, gender, age and background in order to find an appropriate interpreter (Edwards, 1998). Finally, the establishment of a close and trusting relationship between the interviewer and informant is difficult (Lou, 2008), since the interpreter's involvement in the interview situation reduces the intimacy and "flow" between the interviewer and the informant.

To meet such challenges, a number of guidelines were made in this study (Edwards, 1998; Lou, 2008), including briefing, debriefing and informed consent with both informant and interpreter. To this end, Lou (2008) emphasizes the need for a meta-level discussion, in which researchers and interpreters communicate about how communication were communicated.

### Data analysis

To analyse the interviews of the informants' understanding of health and PA, an analysis strategy inspired by Interpretative Phenomenological Analysis (IPA), as described by Sparkes and Smith (2014) was used. This covered six phases: 1) Transcription and reading, 2) Computerized coding of statements, 3) Identification of links between codes, 4) Hierarchical division of codes, 5) Cross-case investigation of interviews and 6) Collapse of findings (Sparkes and Smith, 2014). In the first phase of our data analysis, transcripts were read thoroughly multiple times, in attempts to understand the individual's perspective while noting the particular themes of each transcript. In the following phases, a systematic coding of each transcript was carried out. The process of reading, note taking and coding resulted in a non-hierarchical coding-list. These codes were transformed into hierarchical list of codes consisting of emerging themes and subordinate categories, from which all transcripts were re-coded through cross-analysis and eventually collapsing findings. All data were managed using NVivo12.

The research team analysed the interviews separately and collectively until a consensus on saturation was achieved. In general, saturation is difficult to define and even more difficult to agree on within a research group. However, we like to think saturation as a less straightforward question. Instead, we think saturation is an ongoing, cumulative judgement that one or more makes, and perhaps never completes, rather than something that can be pinpointed at a specific juncture (Saunders et al., 2018).

### Analysis

A number of three superordinate themes emerged from the interviews with the refugees. The three themes were: a) Perception of health: *A holistic perceptive*, b) Perception of PA: *Important for caretaking* and c) Barriers towards PA and health: *Fulfil demands, meet norms and live with concerns*. The themes will be elaborated below. Note that we have anonymized informants due to ethical considerations and given them fictive names to personalize the results.

#### *Perception of health: a holistic perspective*

Pleasure and well-being were recurring themes many of the informants related to health (most pronounced with the female refugees). Thus, health was not only associated to something *physiological or extrinsic* but also to *emotions*. The informants formulated and related emotions to cheerfulness, happiness and the feeling of well-being.

"[...] but the most important category, I think, is that you feel physically well [...] so that you can go out and be social. Thus, without pain you can be happy and so on. If you are not physically well, you become isolated from others and do not have the power to get out. The

pain has a negative impact on your mental well-being which causes that you cannot participate or be happy” (Sacha, 45 years, female, Syrian).

For the male newly arrived refugees, health was also holistic but also somewhat more instrumental, as here, explained by Qadri (52 years, male, Syrian): “The mental aspect is very important to me. Because when you are happy, you are healthy and it keeps you fresh. (...) But you ‘kill’ yourself, if you are unhealthy.”

Diets were also parts of the informants’ reflections, when asked about health. Several described the importance of eating healthy food. In general cake, sweets, chocolate and Arabian bread were described as unhealthy foods, and many of the newly arrived refugees were conscious about consuming such foods concerning their health, primarily female refugees.

The majority of the informants also expressed the importance of health in their daily lives: Health is important everywhere and through the whole life and thereby health gets a universal status. “[...] health is everything. Health comes first, before everything. If you do not have health, if you are not healthy and well, then you cannot do anything. That is how I see it” (Yana, 26 years, female, Kurdish).

Therefore, many of the informants expressed that they wanted to become healthier (which interrelates with their wishes of becoming more physically active), but different barriers such as body pain and lack of time prevented them from this (elaborated later). In addition, some informants described how the Danish food-culture differs from the Syrian, and one informant reflected on how many daily meals Danes eat versus how many meals “we” eat. The use of “we” in the description marks a distance, which might illustrate a perception on cultural differences in eating habits, however out of scope of the study.

Another informant said that the eating habits are unhealthier in Denmark versus Syria because of the larger amount of temptations available in Denmark. Some also explained that the vegetables tasted quite different in Syria, and they literally knew where the food came from – and that differs from experiences with food in Denmark.

The majority of informants also express a belief in that one’s own good health can benefit the surroundings. Here in the words of Osman (32 years, male, Eritrean): “When a tree grows, it gives nutrition to those who dwell under it and to those who eat from it”. To Osman being healthy help him grow, but also affects his surroundings in a positive way. A healthy lifestyle furthermore adds a possibility to assist your surrounding and focus on other things than yourself. Thus, the informants found that being healthy and physically active was important, in order to take care of their family.

In particular family, were perceived as an important aspect to health, here explained by Aimar (55 years, male, Kurdish): “Being social is important. Cooking together, walking together, cycling together, that is very important. (...) When living unhealthy, you get isolated from the social.”

Informants also emphasized how being healthy by for instance doing PA, could make them think more clearly. Massawa (26 years, male, Eritrean): “If you can think logical, then it is good. PA is one of the most important tools to get a healthy body, so that you think clearly.” However, it is unclear what ‘thinking clearly’ and logical means. On the one side, it may indicate that PA improves their cognition ability/mental health and hereby the ability to think logical. On the other hand, it may be an expression for cleaning up your thoughts (cater to one’s mental health). Thus, PA seemed to be perceived as a way to avoid negative thinking patterns. Furthermore, it suggests, that PA can be a personal space for thinking on other things than everyday issues. All functions to enhance mental health, which can be vital for a challenged life circumstance such as being refugee.

The informants’ description of health manifests itself in broad sense. Result presented here suggest the different aspects influencing the health such as PA, well-being and diet. In addition, health is described as something that can be affected by external circumstances (community, society etc.), as well as the people with whom the person is closely involved (family, peers etc.). Thus, the informants show what could be

seen as a broad and holistic perspective on health, where health is understood as a part of life and therefore is far more complicated than just the absence of illness. The absence of illness are usually coined as a medical perspective on health (Antonovsky, 1996), while many of the informants perspective on health more corresponds with WHO’s understanding of health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 2019).

#### *Perception of PA: important for caretaking*

According to the informants’ PA was perceived as physical fitness, sport, bodily movement, using the body and to make an effort. In continuation hereof, the informants articulated multiple arguments on why it is beneficial to be physical active PA was described as having a positive impact on physical health and contrary an inactive lifestyle provides negative consequences as illustrated in the following quote: “Thus, you want a body like that, and you want a good physical fitness. On the other hand, if you don’t practice sport, and you sit down all the time, you are bored. You fatten and you get slow” (Yana, female, 26 years, Kurdish). The majority of informants mainly argued for the *extrinsic* benefits linked to PA as an instrument to cope with daily challenges, such as household activities or job demands. However, a few participant (only female) represented a different perspective highlighting the *intrinsic* value of sport as outlined in the following quote: “It is wonderful to be in sport. It is wonderful to do sport” (Sacha, female, 45 years, Syrian).

Nevertheless, it was generally agreed amongst the informants (in particular male) that PA was seen as a means to strengthen the body, meaning that it assisted the refugees to stay fully functional in their daily living. PA was by the male newly arrived refugees seen as important instrument to make sure that they could provide for their family (e.g. economy and external demand), while female newly arrived refugees were more explicit on the compromises they had to make with being physical active, in order to be the “expected” caretaker of their family. One informant described how PA eased the pain experienced in back and legs from domestic work. Another informant found it important to have a physically strong body to withstand a long workday (Massawa, 26 years, male, Eritrean): “Yes, I practice sport [and PA Ed.]. The reason for doing sport is that I become more flexible. My body is then able to perform activities in a better way. You stimulate your muscles so that they become more functional and flexible if you do sport”. In addition, informants indicated that the bodily condition influenced the perception of PA.

However, informants also described that PA to them was associated with e.g. a less attractive physical education program at school, PA possibilities in form of access or cultural stigma in the their former countries. One of the informants described her experience with physical education in school like this: “[...] when we started 7th grade, we had physical education in school ... we had something similar to a football-field, and we had to run around it, and that was boring. After half an hour we stopped” [because of the warm climate Ed.] (Haya, female, 40 years, Syrian). Hence, prior experiences of PA may be important to consider for refugees, since they for many (especially female) may not be associated with positive experiences.

In Denmark the informants’ physical activities were brisk walks, cycling (transportation from A to B), jogging/running and exercise [in fitness centres Ed.] to reduce physical pain. The majority of the refugees expressed that they wanted to be more physically active and their different preferences varied amongst aerobic, training at a fitness centre, learning how to bike, jogging, walking and training with others. However, a few female refugees had also experienced barriers such as rejection from their husband: “I really want to be more active, but I have never checked out if there are any running clubs or something similar because my husband says, “Do you want to run, be physical active, do sport or fitness in front of the men?”” (Tamara, female, 28 years, Syrian).

As the quote illustrates, support from spouses and family support to be more active can be a challenge, for especially female refugees, which may have a negative impact on PA.

Generally, the informants' perception on PA was related to health and well-being. All the informants associated health with PA as either sport, exercise or as a way to stay active for example through daily work [in the household or at job Ed.]. One of the informants described how a walk as a type of exercise could contain recreationally aspects which outreached the PA itself: "Sometimes when I go for a walk in a beautiful place, I get the feeling of pleasure when I arrive back home. You can't stop saying to yourself: "I would wish I could do this every day my whole life" because you get the feeling of pleasure" (Yana, female, 26 years, Kurdish).

#### *Barriers towards PA and health: fulfill demands, meet norms and live with concerns*

One of the most salient described barriers for PA and health was the lack of mental, economic and social resources. The newly arrived refugee's felt a mental pressure in their daily life, which has a negative impact on their experienced ability and desire to do PA and maintain good health.

The informants describe it as difficult to manage and handle all the external demands from the surroundings (Government, family, language centre etc.), while at the same time having internal mental strain caused by the time before, during and after they fled to Denmark. Overwhelming demands constituted a vicious circle causing a perceived mental pressure, which makes participation in PA less vital in their daily lives:

"So, you still worry about what happens to them, what happens to your family-in-law: "Have they escaped or not? Have they been hit?" Moreover, in this month we have not heard anything from them. Therefore, you actually think a lot. And that makes it hard to live in peace" (Berna, female, 38 years, Syrian).

The informants all felt a strong connectivity to their country of origin, and it occupied a great deal of mental resources in all interviews.

The refugees furthermore experience pressure from the national and local authorities to fulfil the existing demands (e.g. to obtain the right to financial support). They worry about family well-being, while simultaneously, they are engaging in social relations in school, job and build up a new social network. As a result, the refugee try to cope with all these demands while also coping with potential personal challenges connected to being a refugee. This intense cross-pressure is potentially a problem in managing a healthy lifestyle, as some demands and problems overshadow the mental energy to focus on health.

Another challenge associated with the mental strain described above, is the perception of lack of time to be physically active due to other obligations. One of the newly arrived female refugees elaborated it in this way: "Here in Denmark, women work a lot. I go to my internship, I get home, and I am tired. When I get home, I need to cook food, my husband is not at home yet, I need to clean, and I do everything. So, women work a lot both outside the home and inside the home" (Haya, female, 40 years, Syrian). Most of the informants experienced a daily living filled with so many smaller and bigger tasks that needed to be taken care of, which made the refugees deprioritize their own wishes to be physically active. The same theme was also recurrent for their wish to be healthy in general. They did not find that they have enough time to take care of their own needs (e.g. PA or health) because of other obligations such as household duties, attending language centre, or job/internship. It is difficult to say whether this illustrates an uneven division of tasks at home between husband and wife, or whether it is evidence of how the mental pressure is making a larger impact on the newly arrived female refugees in general.

Another, newly arrived female refugee expressed, challenge towards both PA and being healthy was a belief of having low support in their social network to properly handle the mental health issues and engage in

PA. "I need someone to say: "Yes, come on!". I say to my husband: "Now we go for a run", but then he says: "No, it's raining", "No, it's cold", "No, I don't bother". I want one who pushes me" (Tamara, female, 28 years, Syrian). Such beliefs indicate that social support is important to develop the motivation for PA to the informants and particular newly arrived female refugees, which may for many be another barrier as this support is low. This may also be taken into consideration to some of the cultural barriers expressed from woman (see also the section on perception on PA), when expressing an interest in being physical active in the public:

"The problem is, that if I go for a run, and some of the Middle Eastern or Arabic men see me, they say, 'Oh, look at her, she has become a Dane, she has started running!' I know how they think, those Middle Eastern men. That is why I have this mind-set like the proverb: 'You cannot hide from your own skin'. That is how it is for me, but I want to [be more physically active]." (Tamara, female, 28 years, Syrian).

In general, the informants spoke of a stronger attention to health in Denmark, compared to their native countries. An informant clarifies the difference between Denmark and native country: Hagos (29 years, male, Eritrean):

"There are light years between the way I think about health and the way you think about health. Where I come from, we have to be sick or injured and in pain before we react to it. For example, 'it hurts there, I need to do something', we think that way. I feel excluded from the health topics that you discuss, but I want to be included. We also think about health but not in the same degree as you do preventing illness with varied, healthy, low fat and organic food (...) and doing physical activities. We are on another stage, which is opposite to yours."

Another informant explained that it is not that easy when moving to another country – especially not in relation to health. Haytham (23 years, male, Syrian):

"It is very different from one society to another – from one culture to another. When you live in a society that focuses a lot on health, you need to relate to that society and health. That is why it is important to me because it is generally important in the society (Denmark). If you change one society with another, you also need to change your focus on health".

Hence, the newly arrived refugees described that there is another way of talking and thinking about health in Denmark, compared to their country of origin. In Denmark, they find that health is given more importance and weight than they are used to. This is particularly so with health-promoting efforts (such as leisure time PA), that they would like to be a part of, but do not experience having the resources to be included in. Collectively, these experience seem to result in a feeling of pressure associated with PA and health and their transnational status as refugees.

## **Discussion**

The analysis revealed three overall themes; (a) Health manifests itself in varied ways to the newly arrived refugees. Different aspects of health were described such as well-being, physical activity and diet. In addition, health was described as affected by both external circumstances (community, society etc.), as well as the people with whom the person is closely involved (family, peers etc.). Thus, it suggests a broad and holistic perspective on health, where health is understood as a part of life and therefore is far more complicated than just the absence of illness. (b) PA was described as having important benefits, such as pain relief, better physical fitness, lose weight, a stronger body, to stay active, cater to mental health and in general something of interest to the newly arrived refugees. However, for some, their spouses' lack of support for PA may be an important barrier, and a general lack of good PA experiences from childhood in country of origin can constitute a barrier for being physically active. Furthermore, PA was by the male newly arrived refugees an important instrument to provide for their family, while female newly arrived refugees compromised on being physical active, in order to be caretaker of their family. (c) Overall the informants experienced several barriers for doing PA and living healthy lives. Time, pain, low income, job insecurity, mental strain, discourse of health and

PA (health promotion), external expectations and demands (municipality and government in Denmark), precariat living conditions and general worrying were amongst the most explicit barriers. In addition, the question of how the newly arrived refugees are positioned in their families seems vital, as patriarchal family structures seem to prevent some from doing PA.

As such these results inform us of important perceptions and barriers towards health and PA for newly arrived refugees, which is not well reported within research (Hempler et al., 2020). More research and preferably qualitatively is needed to best understand newly arrived refugees special need (van Loenen et al., 2017), which based on our result should also consider a gender perspective.

A life as a newly arrived refugee is a life full of challenges. New research points to being a *female* refugee in a new country is even more difficult in terms of adhering to demands from the new host society (fewer in jobs and more perceived loneliness) than being a male refugee (Arendt, 2019). Newly arrived female refugees (and their families) are often economically dependant on their husbands (Andersen et al., 2019). Such dependencies may even enhance the societal restrictions (such as presented in this study) of newly arrived female refugees, and making it even more difficult to overcome the daily challenges and being physical active, which collectively may increase the risk posed to mental health of refugees (Norredam et al., 2010; Jervelund et al., 2017). Thus, findings in this study and others (Arendt, 2019) indicate a gender difference for newly arrived refugees, which is vital to address.

Generally, all informants had a wish to be more physically active, but also feeling unable to do so. For newly arrived female refugees the most salient barriers were lack of time due to housekeeping, family obligations and caretaker to their family, but also cultural restrictions being female. According to some of the informants' perceptions, these cultural restrictions were related to how they believe Arabic men would think of women performing PA like running in the public space (which is a very popular activity in Denmark). Doing PA, such as running in the public space, newly arrived female refugees described how they would be accused for being one who wants to be looked at by other men or as one who wants to be a Dane (and thereby in a symbolic way "run" from her original ethnicity).

In a transnational perspective this illustrates one of the dilemmas that newly arrived refugees go through: on the one hand wanting to freely do what is normal in their "new" country (e.g. running in the public), and on the other hand trying to avoid being a deviant in the view of their original culture (Dahinden, 2012). Such variations in attitudes towards PA seemed primarily enforced in the Syrian and Kurdish informants, while the Eritreans did not express such restrictions to newly arrived females explicit. Thus, a transnational perspective on PA and health can help to inform us on cultural difference, national and even regional, which may be very important.

The newly arrived female refugees (especially Syrian and Kurdish) in this study seemed frustrated by these limitations in their daily lives, which made it difficult to fulfil their uttered wish to be more physically active. In a sense, these female refugees are in-between their wishes and what they feel able to do. Furthermore, they are in lack of mental resources caused by fulfilling the demands from e.g. state administration, municipality and language centre. It causes mental strain to manage many-sided different demands and this affects their ability to focus on and prioritize health (e.g. their health promotion and wishes to become more physically active). Applying a transnational perspective to health and PA would acknowledge that the newly arrived refugees are connected to their home country and as illustrated in the analysis they use many mental resources on worrying about their friends and family members who may still be in their country of origin. Despite the newly arrived refugees awareness of the importance of health and PA, this cross-pressure negatively affects the refugees' *own* health and especially females.

The above discussed results has strong relevance to policy makers and recommendation. The findings are important to acknowledge if we

are to challenge the ethnic health inequities that exists in Denmark and many western countries. If we are to reduce ethnic health inequities, it is crucial that Danish welfare institutions (state, municipality and healthcare), including their strategies, approaches and skills of employees, are adapted to serve an increasingly heterogeneous population. The results of this study combined with the newly published recommendations for ethnic equity in health (Jervelund et al., 2021), could prove a good foundation for more policy focus on newly arrived refugees in Denmark and neighbouring countries.

### Strengths and limitations

A strength of this study was the combination of fieldwork, interviews and an interpreter. However, a notable limitation was also the involvement of the interpreter, as this changes the dynamic of the interviews. The dynamics was often based on the experience and personality of the interpreter. One of the interpreters had experience with research interviews, while another was unknown with such. Thus, this created some challenges to the interviews, however our self-made guidelines to the interpreter, ensured that the quality of the interviews was good and we would not recommend doing such interviews, with newly arrived, without an interpreter present. However, thorough considerations on the interpreter role in the interview is important.

Regarding the transferability of our results, we are aware of this studies limitation by focusing on two specific groups of newly arrived refugees namely Syrians and Eritreans. Our study cannot account for all refugee groups, nor is it intended to. However, we believe that our results can be meaningfully translated to other settings and refugee groups, while carefully considering the large variation between refugees.

### Conclusion

The purpose of this study was to attain knowledge of newly arrived refugees' perception of PA and health. Three central themes were established through the twenty interviews with newly arrived refugees in Denmark.

Different aspects of health influence and were described such as well-being and diet. In addition, health was seen as something that can be affected by both external circumstances (community, society etc.), as well as the people with whom the person is closely involved (family, peers etc.). Collectively, it suggests that the refugees has a broad and holistic perspective on health, where health is understood as a part of life and therefore is far more complicated than just the absence of illness.

PA had important benefits, such as pain relief, better physical fitness, lose weight, a stronger body, to stay active, cater to mental health and in general something of interest to the refugees. However, for some, their spouses' lack of support for PA may be an important barrier, and a general lack of good PA experiences from childhood can be a barrier to be physically active. PA was by the male newly arrived refugees seen as important instrument to make sure that they could provide for their family (e.g. economy and external demand), while female newly arrived refugees were more explicit on the compromises they had to make with being physical active, in order to be the "expected" caretaker of their family.

However, the informants experienced several barriers for doing PA and living healthy lives. Time, pain, low income, job insecurity, mental strain, discourse of health and PA, external expectations and demands (municipality and government in Denmark), precariat living conditions and general worrying were amongst the most explicit barriers. In addition, the question of how the refugees are positioned in their families seems vital, as patriarchal family structures seem to prevent some from doing PA.

Several challenges towards refugees health and PA described in this and other studies, addressed the evident need to be even more aware of the difficulties of being a refugee, thus caring to the described cross-

pressure experienced as being a transmigrant. In addition, it seems vital how health promotion initiatives in Denmark could be more culturally competent and sensitive towards the refugees'. One such approach could be by applying a transnational perspective and abandon a western ethnocentric perspective implicit in PA and health.

### Ethical approval

All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

### Informed consent

All participants in the study gave informed consent.

### Funding

Folkesundhed I Midten, Central Denmark Region funded parts of this project.

### Declaration of Competing Interest

The authors declare no conflict of interest.

### Acknowledgement

We thank the municipality of Silkeborg and SprogcenterMidt for allowing and granting us the possibility to conduct this study. Last but not least, a special thanks to the Syrian women for their trust and openness.

### References

- Agergaard, S., 2018. Rethinking Sports and Integration. Developing a transnational Perspective on Migrants and Descendants in Sports. Routledge.
- Andersen, G.S., et al., 2016. Diabetes among migrants in Denmark: incidence, mortality, and prevalence based on a longitudinal register study of the entire Danish population. *Diabetes Res. Clin. Pract.* 122, 9–16.
- Andersen, L.H.; Dustmann, C. & Landersø, R. (2019). Lowering Welfare Benefits: intended and Unintended Consequences for Migrants and their Families. Study Paper no. 138, The ROCKWOOL Foundation Research Unit.
- Antonovsky, A. (1996). The salutogenic model as a theory to guide health promotion. 11 (1), 11–18. 10.1093/heapro/11.1.11.
- Arendt, J.N., 2019. Employment Effects of a Job-First Policy For Refugees. Study Paper no. 139, The ROCKWOOL Foundation Research Unit.
- Biddle, S., 2016. Physical activity and mental health: evidence is growing. *World Psychiatry* 15 (2), 176–177. <https://doi.org/10.1002/wps.20331>. Official journal of the World Psychiatric Association (WPA).
- Bignante, E., 2010. The use of photo-elicitation in field research – exploring maasai representation and use of natural resources. *EchoGeo OpenEdition J.*
- Brinkmann, S., Kvale, S., 2018. *Doing Interviews*, 2nd ed. SAGE Publications. The Sage Qualitative Research Kit.
- Caperchione, C., Kolt, G., Mummery, W., Jenkins, N., 2013. Examining physical activity service provision to culturally and linguistically diverse (CALD) communities in Australia: a qualitative evaluation. *PLoS ONE* 8 (4), e62777. <https://doi.org/10.1371/journal.pone.0062777>.
- Creswell, J., 2013. *Qualitative Inquiry and Research design : Choosing Among Five Approaches*, (3rd ed.). Sage Publications, Los Angeles, Calif.
- Dahinden, J., 2009. Are we all transnationals now? Network transnationalism and transnational subjectivity: the differing impacts of globalization on the inhabitants of a small Swiss city. *Ethn. Racial Stud.* 32 (8), 1365–1386. <https://doi.org/10.1080/01419870802506534>.
- Dahinden, J., 2012. Transnational belonging, non-ethnic forms of identification and diverse mobilities: rethinking migrant integration?. In: Messer, M., Schroeder, R., Wodak, R. (Eds.), *Migrations: Interdisciplinary Perspectives*. Springer Vienna, Vienna.
- Eckstein, B., 2011. Primary care for refugees. *Am. Fam. Physician* 83 (4), 429–436.
- Edwards, R., 1998. A critical examination of the use of interpreters in the qualitative research process. *J. Ethn. Migr. Stud.* 24 (1), 197–208.
- Gerritsen, A.A., Bramsen, L., Deville, W., van Willigen, L.H., Hovens, J.E., van der Ploeg, H.M., 2004. Health and health care utilisation among asylum seekers and refugees in the Netherlands: design of a study. *BMC Public Health* 4, 7.
- Glorius, B., Doomernik, J., 2020. *Geographies of Asylum in Europe and the Role of European Localities*, 1st ed. Springer International Publishing, Cham.
- Grzymala-Kazłowska, A., Phillimore, J., 2018. Introduction: rethinking integration. New perspectives on adaptation and settlement in the era of super-diversity. *J. Ethn. Migr. Stud.* 44 (2), 179–196. <https://doi.org/10.1080/1369183X.2017.1341706>.
- Hempler, N.F., et al., 2011. A registry-based follow-up study, comparing the incidence of cardiovascular disease in native Danes and immigrants born in Turkey, Pakistan and the former Yugoslavia: do social inequalities play a role? *BMC Public Health* 11 (1), 662.
- Jeanes, R., O' Connor, J., Alfrey, L., 2015. Sport and the resettlement of young people from refugee backgrounds in Australia. *J. Sport Soc. Issues* 39 (6), 480–500. <https://doi.org/10.1177/0193723514558929>.
- Jervelund, S., et al., 2017. Morbidity, self-perceived health and mortality among non-western immigrants and their descendants in Denmark in a life phase perspective. *J. Immigr. Minor. Health* 19 (2), 448–476.
- Jongen, C., McCalman, J., Bainbridge, R., 2017. The implementation and evaluation of health promotion services and programs to improve cultural competency: a systematic scoping review. *Front. Public Health* 5, 24. <https://doi.org/10.3389/fpubh.2017.00024>.
- Kvale, S., 1996. The 1,000-page question. *Qual. Inq.* 2 (3), 275–284. <https://doi.org/10.1177/107780049600200302>.
- Langøien, L., Terragni, L., Rugseth, G., Nicolaou, M., Holdsworth, M., Stronks, K., Roos, G. (2017). Systematic mapping review of the factors influencing physical activity and sedentary behaviour in ethnic minority groups in Europe: a DEDIPAC study. Retrieved from <http://hdl.handle.net/10642/5654>.
- Hempler, N.F., Jervelund, S.S., Ryom, K., Villadsen, S.F., & Vinther-Jensen, K. (2020). Veje til etnisk lighed i sundhed. Dansk selskab for folkesundhed. <https://www.danskselskabforfolkesundhed.dk/media/hblbpbpv/gps-veje-til-etnisk-lighed-i-sundhed-final.pdf>.
- Lou, Stina, 2008. Tre Er Et Uimage Par – En undersøgelse Af Tolkningens Vilkår Og Betydning i Kommunikationen Mellem Etniske Minoriteter Og sundhedsvæsenet.” (Three is a crowd: On interpreted Encounters and Professional Uncertainty ed.). Region Midtjylland. Center for Folkesundhed.
- Norredam, M., et al., 2010. Risk of mental disorders in family reunification migrants and native Danes: a register-based historically prospective cohort study. *Int. J. Public Health* 55 (5), 413–419.
- Singhammer, J., 2008. Etniske minoriteters sundhed. Center For Folkesundhed The Danish Immigration Service (2016) Tal og fakta på udlændingeområdet 2015. Retrieved from. [https://www.nyidanmark.dk/-/media/Files/US/Tal-og-statistik/Tal-og-fakta/tal\\_og\\_fakta\\_2015.pdf?la=da&hash=3E56FFB1E9586E1CBB3936704DC61A468C1E3F1D](https://www.nyidanmark.dk/-/media/Files/US/Tal-og-statistik/Tal-og-fakta/tal_og_fakta_2015.pdf?la=da&hash=3E56FFB1E9586E1CBB3936704DC61A468C1E3F1D).
- The Danish Health Authorities, 2011. Ulighed i Sundhed - Årsager og Indsats. The Danish Health Authorities. Retrieved from. <https://www.sst.dk/da/viden/ulighed-i-sundhed>.
- Thorpe, H., Young, K.A., Bingley, M., 2012. The ethnographic (i)nterview in the sports field: towards a postmodern sensibility. *Qualitative Research on Sport and Physical Culture*. Emerald, pp. 51–78.
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., Jinks, C., 2018. Saturation in qualitative research: exploring its conceptualization and operationalization. *Qual. Quant.* 52 (4), 1893–1907. <https://doi.org/10.1007/s11335-017-0574-8>.
- Schiller, N., Basch, L., Szanton-Blanc, C., 1995. From Immigrant to transmigrant: theorizing transnational migration. *Anthropol. Q.* 68 (1), 48–63.
- Spaaaj, R., 2011. *Sport and Social mobility: Crossing Boundaries*. Routledge, New York.
- Sparkes, A., Smith, B., 2014. *Qualitative Research Methods in sport, Exercise and health: from Process to Product*. Routledge, New York.
- Squires, A., 2009. Methodological challenges in cross-language qualitative research: a research review. *Int. J. Nurs. Stud.* 46, 277–287. Elsevier (2009).
- United Nations (2019). *Global Trends - Forced displacement 2018*. Produced and printed by UNHCR.
- Willis, P., 1993. *Learning to labour, How Working Class Kids Get Working Class Jobs*. Ashgate, Aldershot.
- Whitley, M., Coble, C., Jewell, G., 2016. Evaluation of a sport-based youth development programme for refugees. *Leisure/Loisir* 40 (2), 175–199. <https://doi.org/10.1080/14927713.2016.1219966>.
- WHO (2019). World Health Organization. Retrieved from <https://www.who.int/about/who-we-are/constitution>.