Case Report

The role of General Practitioners in Suicide Prevention—what you said and did then actually saved my life

Marte Styrvold 1, Tine K. Grimholt 1-2,*

1 Dep. of Acute Medicine Oslo University Hospital, Norway; Tinegrim@yahoo.no
2 VID Specialized University Faculty of Health, Oslo, Norway
* Correspondence: Tinegrim@yahoo.no Tel.: 004790120011

Abstract: Background: General Practitioners (GP) have an important role in the prevention of suicidal behavior. The purpose of this study was to explore their views and experiences of identifying and assessing suicidal ideation.

Methods: Ten GPs were recruited through convenience sampling, based on accessibility, interest and willingness to participate. In-depth interviews were carried out and results transcribed verbatim. Aspects of experiences with suicidal patients emerged through the thematic analyses process.

Results: The GPs described the varied clinical picture when patients presented in their office. How they identified depressive symptoms apart from originally somatic complaints, formed a trusting relationship and addressed suicide ideation. They described customized interventions as well as obstacles and factors that facilitated communication: time, own personal traits, patient’s disclosure and organizational barriers.

Conclusions: The levels of the suicidal process among patients in general practice vary greatly. GPs adjust their appraisals to profundity understand and intervene in order to prevent a crisis to escalate into subsequent suicidal behavior.

Keywords: General Practitioner; Prevention; Suicide; Qualitative study

1. Introduction

General Practitioners (GP) role and potential have been pointed out as important in suicide prevention [1]. To exploit this potential, it is particularly important to understand how they work with suicidal patients in general practice. However, previous research have to a large extent focused on the amount of fatal cases that consulted their GP before they attempted to- or died by suicide [2] and thus focused on a low frequency of consultations which in turn exclude knowledge of the total prevention potential in general practice and overlooked the primary prevention focus. Already in the early 1980s, Sakinosky underlined how the family doctor had a role to play at all levels of suicide prevention and act effectively in their own offices where they routinely considered depression and suicide potential in their patients [3].

Annually a high number of patients consult their GP. In Norway in 2019 there were more than 14 mill consultations in general practice in the age groups above 16 years, [4] whereas 1.5 mill due to mental illness or mental health problems [5]. However, the vast majority of these patients never engage in suicidal behavior. The suicide rates in Norway have been approximately 550 per year. Of these not all consulted their GP at any time preceding the suicide. A review demonstrated that an average of 55 % of people that committed suicide never went to see their GP the last month before the suicide [6]. Also the fact that many of the last consultations with the GP before a suicide attempt were due to somatic conditions [7], underline that it is impossible to predict which patient that will engage in suicidal behavior. Furthermore, there is a reason believe that interventions carried out in general practice are preventive in the way that
the suicidal process is interrupted at an early stage and thus hinder suicidal actions. The aim of this study was to gain empirical knowledge by exploring the GPs clinical experiences and provide a broader understanding for educational initiatives as well as policy makers.

2. Materials and Methods

2.1 Setting and recruitment
The GPs were chosen strategically to include both short- and long experience from general medicine and gender perspective. Five men and five women were interviewed, the age ranged from 29 to 64 years (experience corresponded with age) and half had worked in psychiatry or/ and had education in cognitive behavioral therapy as part of their specialist training. Participants were recruited via colleagues, and the snowballing method and approached by email or text messages. The participants did not know the interviewer. The study was approved by the Personal Protection Agency at Oslo University Hospital. All participants were informed and signed a written consent. Strict confidentiality to avoid recognition of patients was kept in transcripts and in the manuscript.

2.2 Interviews
The research questions were formulated in order to provide the researcher with an understanding of the meaning of the GPs experiences and to explore phenomena. The preliminary questions were therefore formulated broadly, openly, dynamic, flexible and possible to change as the thematic frame might change during the course of data gathering and if unknown phenomena occur (Smith 2007).

Preliminary research questions were:

What is the role of the GP in suicide prevention? What are the GPs doing to prevent suicidal behavior among their patients? How do the GPs experience the meeting with suicidal patients? What do they experience as negative and difficult? What will they advise other GPs?

A considerable part of the project should be worked through before interviewing. It was therefore necessary that the interviewer was familiar with concepts and theoretical understanding from suicidology and general practice. The interviewer had extensively reviewed related literature. It was also important to follow up interesting ideas and see the new dimensions, which were not anticipated in advance of the interviews [8]

The participants were encouraged to talk about the issues pertinent to the research questions in one to one in depth-interviews. The GPs talked freely and gave narratives about experiences, perceptions and feelings surrounding topics of suicidality in their practice.

After the first five interviews, all the records were transcribed verbatim and main themes were added to the last five interviews to elaborate on topics that were revealed during the first phase of the research process.

This sequential interim analysis allowed the researcher to go back and refine questions, develop hypotheses, and pursue emerging avenues of inquiry in further depth during the second phase [9].
The second part of the process also enabled further investigation in order to clarify, verify and familiarize findings and as outlined by Murphy, search for inconsistent data and try to falsify the phenomenon’s introduced by the first respondents by revealing opposite data [8, 10]. The data collection was terminated when the responses indicated that saturation was achieved.

2.3 Data analysis

Verbatim transcripts of the interviews were analyzed inductively, simultaneous with data collection, using established procedures of qualitative analysis [8].

To obtain the meaning in the text after the records were transcribed, the material included notes from the interviews that were read to obtain a first trend of the picture.

3. Results

The key themes that emerged from the data is presented and supported by illustrating quotes from the transcripts. The findings describe different pathways or steps and measures performed by GPs in the process from recognition of symptoms, identification of suicidality to specific interventions.

The themes are described in the following order: Initial diagnose, symptoms, cues, concerns and the patient disclosure of problems. Recognition and clarifying phase - Tuning into the essence of the problem and forming an alliance. Identification of suicide ideation and intervention strategies.

The GPs narratives formed a picture of the varied and diverging problems and struggles among their patients. From the ones that did not recognize that their symptoms indicated a depression and contrary patients that were explicit about constantly thinking of ending their life. The underlying and triggering causes, ranged from serious traumatic childhood exposure to different sorts of transient life crisis.

3.1 Initial diagnose

When the patient entered the consultation, the actual reason was not always specified. One example was when patients scheduled an appointment with the secretary because of a somatic diagnose instead of revealing their actual problem, because they didn’t want to disclose their personal life or feared stigma. When they arrived at the doctor’s office, patients said that this diagnose was not their actual problem. In these cases, the GPs scheduled a new appointment themselves, so the patient did not have to talk with or disclose this to the secretary.

3.2 Symptoms

The reason for consulting the GP is not predefined with a diagnose when a patient arrives with a variety of symptoms like fatigue, sleeplessness or headache. Patients' beliefs about their symptoms don’t always align with the GP and might influence on their decision to consult- or how they present their problem. One common example that was mentioned was fatigue as for instance can be a symptom of depression, anemia or related to negative life events.
Unrecognized symptoms

Some patients did not understand their symptoms and was worried. One of the GPs gave an illustrative narrative about unrecognized symptoms:

I met a very interesting man for about x years ago, I still have him on my list, that’s why I remembered him. He received a severance package, was fired from work or pre retired or something. Came and complained about .. very linear type of man without any reflections about emotions or something like that. And he came and explained how he was doing, I listened and asked a bit...and at the end I said to him: Do you feel sad and down? “Yes, I do” he said, “Are you depressed?” “O yes.. S***! yes so that is what it is..”

So, he understood that this was an emotional reaction he had and that he could live with, you know... he was afraid that he had gotten cancer.

A similar example was given by another GP:

I recently had a patient that came to me, for not psychiatry, but I started to suspect that there was “some psychiatry here”. A smart man, in fulltime job, in his 50s, but as I understood was a little... um... what can I say “weird” and I felt it was ok to ask questions about that and then he became very denying as he came to me for problems with his knee. And one week later he was hospitalized with suicide attempt where he had cut himself in the arm: I hadn’t seen that coming even though I thought that something was wrong with that man, so it was not possible to pressure him to talk about it, but I sort of invited him to an appointment or open dialog if he needed it, so... and when he came to me for a consultation after the suicide attempt and told that he did it because of the knee problem..I really didn’t believe that.

Masking actual problems

Sometimes patients contacted the GP with somatic symptoms, that later turned out to be psychological, illustrated with this quote:

“.. very often there are patients that come to us with a defined problem that actually not is the case, and after a while we learn that they can come to us with a slow concrete banal ailment. It can be something physical, like:

“I have pain somewhere and wonder what it might be.” in the way that one senses that it may not only be this, but think that they have scheduled an appointment for something they come up with to make contact.

“It might be that they make up something to avoid the receptionist”... And that they don’t want to tell others than the GP.. maybe even difficult to talk about with the GP and I think as a GP you should be very aware of that.. If you can sense it and ask that question.

3.3 Cues and concerns, patient disclosure of problems

The question about how the GPs revealed mental health problems and suicide ideation, depended on partly unexplainable factors and in what manner the patients communicated them. The patient’s cues and concerns had to be recognized and identified.
Three categories of communicating suicidality emerged from the data: Verbally explicit, verbally indirectly and non-verbally. In some rare cases, the GPs had tried, but found it impossible to enter into the patient's inner thoughts, and one described this a "black box".

Explicit verbal implying example:

... I have called the acute team several times when I have suspected that something has to be done immediately, for example I had a woman in her fifties, very up- and coming resourceful woman who said: “If nothing happens now I will drive into a wall.. or I am like complete out now..um.. It has been psychiatric problems alle the way, and she was like all out now.. I called, then I called the team right way and they took care of her and initialized hospitalization
And if someone is so open and direct it is much easier to deal with, it's difficult when someone just turn their back and pretend that everything is ok, and it isn't. That is difficult.

"Because if you don’t ask and dig into it..um.. then you often will only get information about something that might be rooted in something deeper, and so it is not always you get it in a twenty-minute consultation, but then, if I sense it, in this case it is important to seize, I often end the conversation by having a dialog with the patient in order to have a new conversation ... and they think of that as positive and I schedule one hour to talk more about the psychiatric part, then it is incredible how much that is disclosed and revealed because then we are both prepared to talk and if you dig deeper and ask you will find out a lot”

Indirect verbal implying

The “door handle” was when the consultation was over, the patient was about to leave and, on the way out held the door handle and said: “by the way...”
Or the accidentally dropped quotes in the end of a consultation like: “By the way I need a referral to a psychologist”

Non-verbal implying

There was an agreement that level of training and experience increased ability to sense and respond to cues given by the patients and see beyond “that ear” or “that knee that hurt”. This ability also increased in line with the duration of the doctor-patient relationships. GPs with more than 30 years' experience had known some of their patients from they were teenagers and followed life events like marriage, pregnancy or divorce.
When they knew the patient, it was easier to recognize whether their illness behavior had altered, and they immediately understood that something serious was going on.
Also, when they followed a patient regularly, it was possible to recognize a shift in the patient's behavior that indicated a need for more thorough assessments.
The GPs also described how the recognition of patterns abled them to diagnose different diseases. Sometimes it was no doubt that a depressed patient arrived the office.

However, in some of the cases, the GPs could not quite explain why or how they suspected or sensed that there was something more serious than what the patients communicated verbally. They referred to

“If I am sitting with a bad gut feeling”, “Sometimes I just get concerned” and “You have to be aware of whether this trigger any tears or feelings in yourself”.

One of the GPs described that if a patient was “blurry” it was possible to choose degree of involvement, as they weren’t blamed and to some extent could choose how much they should engage and follow cues. The GPs could also have a “bad day” often in combination with lack of time.

One of the GPs described that she was sometimes worried:

“But there are these youngsters, like they are really ill and stuff... they don’t get in touch to get help and you have to grab a hold of yourself and I get very worried for them if they don’t pick up the phone when I try to call them several times”

Further the GPs described that they had to be able to “keep out their antennas” and be curious. Some emphasized the importance of being primed, and one of the GPs explained how a colleague with high expertise about depression in adolescents “could spot a depressed youngster behind almost every corner” illustrating the fact that knowledge and expertise increased their ability to recognize psychological problems.

The GPs were extra aware when risk factors for suicide were present in addition to psychosocial problems. e.g., being a young male or previous attempted suicide.

Some described that they sometimes “got a hunch” about the patient’s somatization and tried to find out whether these somatic symptoms actually were due to psychological problems.

“It is most often the boys I have noticed, like around 30 to 45 years. In these age groups is it a lot.. I don’t know if I is because I am female doctor that they are maybe don’t able to talk about, they somatize a lot and some come and say that they have migraine and I say that if you have so much migraine maybe we have to figure it out, and then it actually was anxiety...”

Non-explicit patients, the “black box”
In cases where a patient had attempted to- or died by suicide, the GPs said that they used a considerable amount of time to figure out whether there was a sign of anything during the last contacts with the patients preceding the suicide. Although even if they knew the patient well, it was not possible in retrospect to find any cues or warning signs that either could explain or predict that this particular patient was going to end his or her life.

“I follow up if I have a feeling that there is something and then I call, but it was to late, but I don’t know really, it isn't
always possible to do something…”
“I think that among some patients it is impossible to enter the patients inner “black box”, and in some cases it is not possible to crack it, they never reveal their inner thoughts.”

3.4 Clarifying phase - Tuning into the essence of the problem and forming an alliance

“I think that... as a new general practitioner... you have to do a thorough anamneses and get to know the patient and that is the positive thing about being a general practitioner, that you know the patient and can schedule a new appointment soon and you can tell them that you can call the next day... it is a low threshold to come back, the MADRS is useful, because then you get to catch sleep, anxiety and different things in a good way... “

To form an adjutivse alliance towards agreement about a depressive state of mind and possible suicide ideation emerged as an important factor in their work. However, it was not always easy to find an opening where they could ask about suicide ideation.

The GPs gave examples of patients that were resistant to accept that they were depressed or reveal their extent of distress. They often had to circle in a common understanding if the patients were blurry and vaguely indicated more serious psychological problems. To dig deeper into the patient’s situation and problems they asked about practical daily life activities like: “How does your laundry room look like?” or “Do you get enough sleep at night?”

This was a careful process where the GPs had to establish agreement and consensus with the patients about whether symptoms like fatigue or sleep disturbance could indicate an underlying depression rather than e.g., somatic conditions

“...But the ones that don’t quite understand that they might have a depression, you have to be careful and take it slowly to get them to follow and agree to the fact that this might be due to depression.”

“You cannot just throw a depression diagnose into their lap»

Several of the GPs described cases where especially female patients seemed to prefer a somatic diagnose instead of psychiatric. Examples were Myalgia encephalomyelitis or Hypothyroidism.

“ Of course, we examine all kinds of possible explanations, with blood samples, cardiologist and neurologist, but if we don’t find anything, we have to cut the crap and find the real problem”

Looping patients. Because it was not possible to establish a further treatment plan without a common understanding of the problem, the GPs sometimes experienced some of the patients as time consuming and frustrating. Especially when patients refused to listen to their advice, and it was impossible to develop any further progress.
“So why can you not listen to me for the twentieth time, instead of your friend that happened to read about this in a magazine or at Google…”

One of the major qualities that promoted and inhibited the forming of an alliance and process of identification was sufficient time and how it was communicated. Factors that hindered a constructive communication with the patients were to avoid eye contact, write on the computer, looking at the watch or show restlessness e.g., by shaking the leg while the patient talked. The importance of waiting for the patient to talk and endure latency was underlined together with an understanding and interested behavior.

“We have to look them in the eye, endure latency and show them interest and understanding”

In cases where it was impossible to obtain an alliance with the patients, the GPs acknowledged this and referred to other health care services.

3.5 Identification of suicide ideation

The use of MADRS (Montgomery and Aasberg Depression Rating Scale) was commonly mentioned to assess depression and suicidality. The GPs were satisfied with this scale that was a in the electronically medical system, and they often incorporated the questions into a conversation. It enabled them to obtain a broader understanding and map out the severity of depression. One of the GPs said that there was a reason why the question about suicidality was the last item in the instrument. Thus, underpinning that you cannot jump right on and ask about this until you have established an alliance and an agreement.

“We don’t ask about suicidal thoughts when they get a prescription on p-pills you know”

“We bring it up after a while, it is a reason why that question is the last one I MADRS”

3.6 Preventive interventions in general practice

The wide specter of patient needs call for customized interventions and referral to secondary health services (not described further), but some common important factors emerged from the data. One quote was illustrative:

“.But in the aftermath some patients have come to me and said: That thing you said at that point, or what you did then, that saved my life”

So, what was this that he said or did? The GPs explained how they initiated primary preventive measures that might interrupt and stop the development of a suicidal crisis. Examples were sleeping problems, life crisis, medication for pain, sick leaves and referral to specialist. They scheduled frequently and often prolonged consultations.
Some try without a specialist and then we try other things, routines, sleep, eat properly... just come to talk and figure out things. Often it is helpful to come and talk about and turn around on things, it is often job stuff. Many are unsatisfied at work, but then you have to do something about it. I am a mother, a coach a psychologist...

One important phenomenon that emerged was the combination of providing the patients with hope, safety and commitment.

Phrases like: “I will help you getting through this”, “I will be here for you”, “I can help you get through this”, “I am good at this”, “It is not dangerous”, and “It will be better when we have found out of these problems that you have” “I will take care of you, I am good at this”

The GPs underlined that they were available, often provided the patients with a telephone number and encouraged to contact them if a crisis emerged. In some cases, also out of office hours. If the patient did not arrive on the scheduled appointment, they worried and telephoned them or contacted significant others.

“If I have a feeling that something is wrong, I call them”

4. Discussion

4.1 Summary of main findings

The main findings describe the pathways into how GPs disclose suicidality among their patients. Further the steps in the process from how the initial diagnoses and symptoms are investigated together with cues and concerns to how they form an alliance and tune into a common agreement with the patient. The data also show insight into how the GPs provide patients with hope and safety by being available and committed. Customized interventions that might interrupt the process that might lead to subsequent suicidal behavior are described. Examples were small steps like a shorter period of sick leave, keeping a regular contact during a life crisis or to treat and refer to help with chronic pain that is closely associated with suicidality [11]. In line with previous research it was essential to establish a working relationship in which the patient felt listened to and understood [12].

4.2 Strengths and limitations of the study

This study is presented in line with the COREQ statement [10] and the current qualitative research findings extend and build a picture of the phenomenon’s and adds knowledge to this particular area of general medicine where researchers often have focused on retrospect and used quantitative registry data.

One limitation was the sample size; however, gender and the range of experience resembles the population and with regard to the saturation was achieved in the main findings.
4.3 Comparison with existing literature

It is difficult to determine the prevalence of suicidal ideation in general practice. One study from USA found that suicide was discussed with 11% of the patients that had reported to have suicide thoughts before the consultation without the GP knowing [13]. In a Norwegian study, 25% of the patients reported to have suicide thoughts- and approximately 50% talked with their GP about this during the last contact before they attempted suicide [14]. A psychological autopsy study of 571 suicides demonstrated that 22% of the patients that had been in contact with health care services less than four weeks before the suicide had discussed suicide ideation, whereas 21% of those who ended their life the same day had talked about it [15]. The findings in our study showed that the GPs sometimes were surprised and weren’t able to understand why their patient ended his or her life. This is in line with findings that the GPs often find a patients suicide shocking and surprising [16]. It is important to bear in mind that patients might conceal their thoughts or plans or vice versa talk about suicidal thoughts without having a serious intention about ending their life [17]. The findings described how the GPs provided their patients with hope and ensured that they could help them. Hopelessness have been pointed out as a strong and stable factor associated with suicidality [19, 20]. Interventions that decrease pessimism and provide hope might therefore be useful in all levels of suicide prevention initiatives.

4.4 Clinical implications

The patients in general practice with unrecognized symptoms was an interested finding. For health care personnel it might be difficult to understand, or they might forget that symptoms that are well known associated with e.g., depression is not recognizable to all people. The fact that many members of the public cannot recognize specific disorders or different types of psychological distress is therefore important to bear in mind. The evidence from surveys in several countries about the defencies in mental health literacy among the public, for example how to recognize the development of a mental disorder in contrast to physical illness was pointed out by Jorm [21]. The use of screening instruments can disclose suicide thoughts, and the MADRS (Montgomery and Aasberg Depression Rating Scale) scale was commonly mentioned by the GPs. Even though screening instruments cannot replace a clinical interview, it might be a useful supplement. Many of the GPs incorporated it into the conversation or used it to tune into the question about suicidality. Such instruments can also be useful to measure and follow the development of depressive and suicidal symptoms over time. In a study where suicide risk was incorporated in a standardized electronic tool for psychosocial history among adolescents, the frequency of suicide risk assessments were doubled [22]. The referral rates increased correspondingly,
but it was not investigated to what extent the young people actually were followed up and received treatment or whether this contributed to any health benefits. Such findings can therefore not provide evidence about a direct effect on suicidal behavior, however in some cases it might lead to improved health services for patients and thus an indirect preventive effect.

In our study the GPs that had experienced suicide among a patient, said that they had really tried to think of any signs or cues that they should have discovered during the last consultation. However, they could only speculate in why this had happened. A Danish study of GPs showed that the experience of a patients’ suicide had a substantial emotional effect on them. Examples were feeling of guilt and failure. Further if patients had contacted them about physical symptoms and they didn’t diagnose any suicidality, this led to considerable self-scrutiny [16]. In our study, some explained how they sometimes revealed mental problems among patients that were somatizing, for instance with headache. They also treated and dug deeper into physical illness that was associated with worries and psychological stress. Adult studies on non-disclosure of psychological problems suggest that patients contribute to non-detection by presenting their distress as somatic rather than emotional [23]. Further, recognition of psychiatric distress in primary care was reduced with increasing levels of somatization [24].

It is important to underline that even if the self-scrutiny in some cases may lead to increased knowledge, the retrospective perspective might contribute to curb the personal burden for health care personnel and the fear of being blamed. The fact that some people choose to not tell anyone about their suicide plans is illustrated with a quote from Sakinofsky: “A truly suicidal patient has no interest in betraying his intentions to someone likely to impede them” [18]. One of the main finding is the amount of time that are needed to reveal, address and prevent suicidality in all the steps of the process. This is an important factor to recognize for clinicians and policy makers. Especially since these experiences have been mirrored in previous research from patients views that demonstrated that worrying about wasting GP time is a complex barrier to help-seeking. GP time and resource scarcity, symptom gravity, appointment etiquette, and previous GP interactions contribute to increasing these worries. Friendly GP relationships, economic reasoning, and a focus on the GP’s responsibilities as a medical professional reduce this worry [25].

4.5 Implications for future research

This study has shown insight into the GP’s work and clinical practice. There is no evidence to measure the extent to whether their role and work contribute to the prevention of suicidal behaviour. However, the findings should be examined in more detail on the basis of the patient’s views. Patients can mirror these findings and elaborate on what GPs actually said or did, or opposite, what they did not say or could have done differently. The empirical literature with this particular primary focus is scarce. Researchers should take into account the experiences of patients in life crisis or depressive states who have not attempted suicide and provide insight to understand and inform clinical interventions. Further, more insights into why some people are willing to discuss suicidal thoughts and plans while others are a black
box is useful knowledge. People that have survived suicide attempts would probably provide valuable information about the events and communication preceding the attempt. Another finding that should be pursued and further investigated is the prevalence of mental health literacy in relation to suicidality in the public and in health care services. It is important to raise awareness in the public about the GPs role in help seeking when a crisis emerges. Further whether it is stigma or other phenomena or a combination that contribute to the resistance against being diagnosed with psychiatric illness should be focus on public health research initiatives.

5. Conclusions

In this study we have explored the experiences of GPs and their view of suicide prevention in their practice. Many of the patients arrive with diffuse symptoms and if they sense or understand that there might be a risk of suicidality, they have to firmly develop a common understanding with the patients. Small steps of help, like more frequent consultations and a personal commitment together with creating hope and safety might in some cases help and avoid any further escalation of a crisis.

There are several factors that are important, but time seemed to be crucial to both identify and to follow up with sufficient measures.

6. Patents

Author Contributions: Conceptualization, methodology, interviewing, project administration and funding acquisition T.K.G.; Validation, transcripts, formal analysis and writing M.S., T.K.G. Both authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by The Dam Foundation and the Council of Mental Health in Norway (grant number 2015/F05106) and Research Council of Norway (grant number 288731).

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, The Personal protection Agency at Oslo University Hospital. Approval from Ethics Committee was not necessary.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The full dataset is transcribed in Norwegian language but can be made available at reasonable request.

Acknowledgments: The authors would like to thank the GPs that participated in the interviews and shared their experiences and perceptions. Further thanks to the Dep of General Practice, University of Oslo for suggestions and help with recruitment.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

References

5. [https://www.ssb.no/en/statbank/table/10141/tableViewLayout1/]