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Review article

The “Choking Game” in the Czech Republic: An invisible phenomenon?

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ABSTRACT

Aim: The “choking game” (CG) is an activity in which self-strangulation, strangulation by others, or hyperventilation followed by applied pressure to the neck or chest is used in order to restrict oxygen flow to the brain and induce a brief euphoric state. Typically, the CG is engaged in by adolescents; it can cause serious injury and even death. The aim was to ascertain whether there are any scholarly publications on the CG in the Czech Republic (CR) and whether Czech adolescents engage in the CG, based on a search of sources available online.

Methods: Nine online databases/search engines were accessed to identify scholarly publications on the CG in the CR, using English and Czech key words as well as the slang word “holotrop”. Next, a Google and YouTube search was conducted to identify non-scholarly sources. The obtained sources were systematized for qualitative analysis.

Results: Seven Czech scholarly publications have mentioned “self-strangulation”, a practice sometimes used to cope with distressing emotions. Three books have described “holotropic states” (and/or “holotropic breath work”), which are concepts and activities not identical to the CG. The Google and YouTube search identified a plethora of Czech blogs and videos on “holotrop”, i.e. the CG. The CG has been practiced in various settings; the motives include entertainment, peer pressure, curiosity, and a desire to overcome boredom. The bloggers have experienced or observed diverse CG effects; their opinions on the activity vary.

Conclusions: We hypothesize that because young Czechs use slang (“holotrop”) when discussing the activity, the magnitude of the problem in the CR has remained unrecognized. Research is urgently needed to examine this phenomenon. Czech nurses should be involved in this process.

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Introduction

The “choking game” (CG) is a thrill-seeking activity in which self-strangulation or strangulation by another person is used in order to induce a brief euphoric state caused by restricted oxygen flow to the brain [1, 2]. Alternatively, self-induced hyperventilation followed by applied pressure to the neck or chest is used [3]. Participants often report experiencing a pleasurable “high” before they lose consciousness, and again when the blood flow to the brain is restored and consciousness is regained [2, 3, 4].

Typically, the CG is an activity engaged in by adolescents, either in groups or alone [2]. They do so due to their exploratory tendencies and inclinations toward risky behaviours and experimentation. Furthermore, adolescents often accept challenges arising from peer pressure [3, 5]. It is argued that these motives for engagement in the CG are distinctly different from suicidal intentions and motives for self-harm and sexual asphyxia (autoerotic asphyxiation) [6]. In fact, young people think that the CG is safe because no drugs or alcohol are involved and they sometimes perceive it as “the good kids’ drug” [3, 7] or “the good kids’ game” [4]. They only want to see who can go longest without losing consciousness while their peers find the activity entertaining [4]. In France, the activity is so common – in a recent study 40% of children in the 1st and 2nd grade reported they had already engaged in the CG – that younger adolescents engage in it simply because “everybody in school is doing it” [8, p. 48].

According to a systematic review of the scientific literature published in July 2014, the “choking game” was reported in 10 countries [6]. In the cross-sectional studies included in the review, the median lifetime prevalence rate of ever having been engaged in the CG was 7.4% [6]. Cases have been described mainly in the United States [1, 9], Canada [10] and France [8, 11] as well as in Spain [12], Saudi Arabia [5], Israel [13] and several other countries. These reports are relatively recent; however, according to some sources, the CG has been observed among Eskimo children since long ago [5, 14].

The CG goes by many different names, among others, e.g. self-asphyxia risk-taking behaviour (SAB) [3], non-suicidal self-strangulation, the pass-out game, suffocation roulette [5], blackout, the fainting game, space monkey [2] or in French-speaking countries “jeu du foulard” (the scarf game) [4]. According to Re et al. [4], the term “choking game” is a misnomer because the application of an external pressure on the neck is usually called “strangulation”; on the other hand, the term “choking” usually refers to asphyxia by obstruction of the internal airways.

Still, among adolescents and through a number of news media reports, the activity is most commonly known as the CG. In fact, a plethora of CG information is available on social media such as YouTube, which has enabled hundreds of thousands of young people to watch CG videos and observe various methods for engaging in this activity both with peers and alone [2, 5, 7, 15]. In just 5 years, the number of CG videos available on YouTube has increased by 400%. This widespread dissemination of CG

information may potentially normalize the activity despite its dangerousness [5].

Risks of the CG include chronic headaches, changes in behaviour, short-term memory loss, seizures, concussion, retinal haemorrhage and visual impairment, recurrent episodes of syncope, falls due to a loss of consciousness resulting in head and musculoskeletal trauma, strokes, brain damage, and death [1, 2, 3, 4, 12, 15]. The risk of unintentional death or disability increases especially when engaging in the activity alone as there is nobody else present to release the choking apparatus before losing consciousness [2, 3, 15]. In such situations, some of the deaths are labelled as suicides, making it difficult to obtain accurate CG-related mortality statistics [3, 15].

The above-mentioned systematic review has identified 99 fatal cases worldwide [6]. According to the Centres for Disease Control and Prevention, from 1995 to 2007, there have been 82 deaths due to the CG among American youths aged 6–19 years [1]. However, advocacy groups suggest that each year, as many as 100 deaths are attributable to the CG [15].

The aim was to ascertain whether there are any scholarly publications on the CG in the Czech Republic (CR) given its occurrence in other European countries. Furthermore, the aim was to find out whether Czech adolescents engage in the CG, especially since CG information is readily available online, as mentioned. According to a survey among more than 700 Czech adolescents aged 11–19 years, social networks (especially Facebook and YouTube) are used by most of them daily. Slightly more than one quarter of them use social networks in order to access videos [16]. Therefore, engaging in the CG after viewing a CG video could be a realistic scenario.

Material and methods

Using English key words, the following online databases were accessed to examine whether there are any scholarly publications on the CG in the CR: CINAHL Complete; MEDLINE Complete; ProQuest Health and Medicine; ProQuest Social Sciences; PsycARTICLES/PsycBOOKS/PsycEXTRA/PsycINFO; SAGE Journals; Nursing@Ovid. The databases were accessed via the Online University Library at the University of Phoenix, USA. The search was carried out in July 2016. The following publication date range was selected: earliest available date to present. The search strategy (Table 1) was inspired by a search strategy used by Busse et al. in their recent systematic review on the CG [6]. MEDLINE Complete search yielded one source; however, its content was of no relevance to the topic being studied (Table 1). All the other mentioned databases yielded no results.

The Czech version of Google Scholar and the Medvik gateway were accessed to search for scholarly publications in the Czech language (Table 2). The Medvik gateway provides access to hundreds of thousands of citations and abstracts of Czech (and until 1996 also Slovak) publications covering topics across all areas of medicine and other related disciplines. It does so mainly through the Czech

Table 1 – The search strategy for retrieving scholarly publications on the “Choking game”, using English keywords

Search terms	Database	Location of search terms	Limiters	Results
(asphyxi* OR airway obstruct* OR choking OR hypoxi* OR suffocat* OR strangulat* OR anoxi* OR hypocapni* OR hyperventilat* OR breath hold*)	CINAHL Complete	Abstract	Full Text; Scholarly (Peer Reviewed)	0
AND (risk tak* OR risk behaviour OR risk behavior OR game OR self-injur* OR self-infect* OR play)	MEDLINE Complete	Abstract	Full Text; Scholarly (Peer Reviewed)	1 (0 ^b)
AND (child* OR adolesc* OR preadolesc* OR pre-adolesc* OR young adult* OR teen* OR youth* OR young* OR boy* OR girl* OR juvenile* OR minor* OR pediater* OR paediatr* OR pubert* OR pubescen* OR pre-pubescen* OR prepubescent* OR pre-pube* OR prepube* OR puberty OR school* OR pupil* OR student* OR undergrad* OR college* OR classroom OR college OR campus OR universit*)	ProQuest Health and Medicine	Abstract	Full Text; Scholarly (Peer Reviewed)	0
AND Czech	ProQuest Social Sciences	Abstract	Full Text; Scholarly (Peer Reviewed)	0
	PsycARTICLES / PsycBOOKS / PsycEXTRA / PsycINFO	Abstract	Full Text; Scholarly (Peer Reviewed)	0
	SAGE Journals	Abstract	–	0
	Nursing@Ovid ^a	Abstract	Full Text	0

^a Nursing@Ovid includes the Journals@Ovid, Books@Ovid and Joanna Briggs Institute EBP Databases.

^b Number of sources with relevant content.

Table 2 – The search strategy for retrieving scholarly publications on the “Choking game”, using Czech keywords

Search terms	Meaning in English	Database	Limiters	Results
„dobrovolné škrcení“	voluntary strangulation	Google Scholar	Only websites in Czech	0
„sebeškrcení“	self-strangulation			8(7 ^a)
„škrtící hra“	choking game			0
„hra na škrcení“	choking game			0
„holotrop“	holotrop			4(3 ^a)
„dobrovolné škrcení“	voluntary strangulation	Medvik	Only websites in Czech	0
„sebeškrcení“	self-strangulation			0
„škrtící hra“	choking game			0
„hra na škrcení“	choking game			0
„holotrop“	holotrop			3(0 ^a)

^a Number of sources with relevant content.

National Medical Library (NML) online catalogue and the Bibliographia medica Československa (BMČ) database. For Google Scholar, the selected date range was “any time” (i.e. no publication date restrictions were applied). As for Medvik, no publication date restrictions were applied either; therefore sources published since the inception of the database (1949) to the present could be included. Based on our personal knowledge of slang expressions used by young Czechs, the search included the term “holotrop”.

As for Google Scholar, seven relevant sources were identified using the keyword meaning “self-strangulation” (“sebeškrcení” in Czech). Using the term “holotrop”, three relevant publications (all of them books) were retrieved using Google Scholar. The Medvik search did not identify any relevant sources. The relevant sources were briefly summarized.

Finally, a Google and YouTube search was conducted using the Czech key word “holotrop”, in an attempt to identify a broader scope of sources (non-scholarly) in the Czech language. No time limiters were applied. One criterion was used in both Google and YouTube: the Czech language (by using Google.cz and on YouTube, by using a filter). Moreover, on YouTube, only videos were accessed (using a filter as well). Based on our prior personal experience, we expected to find a variety of sources. Therefore, the

obtained data were systematized for qualitative analysis, in line with the following research questions:

1. In what contexts and with what frequency does the CG take place?
2. What are the motives for engaging in the CG?
3. What CG techniques are mentioned?
4. What effects of the CG are mentioned?
5. What are the Czech bloggers’ opinions on the CG?

Results

Scholarly publications on the CG

Seven relevant Czech sources were retrieved using the Czech term “sebeškrcení” (meaning “self-strangulation”) all in Google Scholar. Three of them have been published – an article published in a collection of academic papers [17], an article in a peer-reviewed journal [18], and a book [19]. The four remaining sources were student theses (two bachelor’s and two master’s theses). Six of the sources focused on self-harm in children and/or adolescents, and “self-strangulation” was mentioned as one possible manifestation of self-harm. The remaining source was a

theoretical discourse on self-destructive behaviour and relevant concepts, terminology, and classification [17].

Three relevant Czech sources were retrieved while using the term “holotrop” – two books by Grof [20, 21] and another by Pechová [22]. Both of Grof’s books had originally appeared in English [23, 24]. These sources contain a description of the “holotropic state” (and/or “holotropic breath work”) – a concept frequently evoked by young Czechs engaging in the CG, as evidenced by our Google and YouTube search results described below. This terminology was coined by Grof himself, a psychiatrist and researcher studying the human psyche. “Holotropic state” denotes a subgroup of “non-ordinary states of consciousness”, i.e. states “oriented toward wholeness”. The term was derived from the Greek “holos” (meaning “whole”) and “trepein” (meaning “moving toward”) [24, p. 2]. People in holotropic states remain fully oriented in space and time; yet simultaneously experience “dramatic perceptual changes in all sensory areas”, which enables them to experience “other dimensions of existence” [24, p. 2]. These perceptual changes are accompanied by changed emotional states (ranging from “heavenly bliss” to emotional suffering) and thought processes. A variety of techniques for inducing holotropic states exists, including work with one’s breath [24]. Specifically, holotropic breath work consists of “a combination of faster breathing, evocative music, and a specific form of focused body work” [23, p. 2].

The third source is a book on the psychology of religion, which briefly mentions Grof’s work in the area of holotropic states [22]. It explains that holotropic breathing can cause an acid-base imbalance and can lead to states that are similar to psychedelic experiences brought on by the use of lysergic acid diethylamide (LSD) [22]. However, these sources do not discuss the CG itself.

Czech Google and YouTube sources on “holotrop”

The context and frequency

Using the key word “holotrop”, 107 sources on Google and over 440 sources (videos) on YouTube were identified; however, many were not in Czech even though the Czech language was the selected criterion. All results were subjected to a quick scan and selected results were examined in depth. The Google search using the key word “holotrop” retrieved only discussion blogs and YouTube videos; other websites using the key word were not relevant to the subject. The YouTube search retrieved only videos depicting the CG practice in various settings (or videos concerning “holotropic breath work”, mentioned above, which is not identical to the CG). Other videos were not relevant. From these blogs and videos it appears that the CG is practiced in schools, halls of residence, “out in the open”, at summer camp, etc. In addition, it appears that in some contexts, the CG may be quite prevalent, especially in school settings. The author of one personal blog wrote: “Buenos días, a so called ‘holotrop’ started spreading in my school like a virus...” [25]. In a conversation thread on “holotrop” on a nameless discussion blog [26], school is mentioned in a number of comments by different people: “... have tried it about 15 times in school...” (Renduulina,

November 30, 2007); “... today we tried it with the girls in school...” (Saba, May 20, 2008); “... I have seen it a little in school...” (Trip, September 27, 2010) [26]. According to one comment, the CG is sometimes engaged in during classes: “And you do it in school, during class, just before the teacher comes” (Freya, May 31, 2014) [26].

In the same conversation thread, the results of an unspecified survey on the CG were posted, possibly providing some insight into its “popularity”. The survey consisted of one question: *Have you ever tried it?* The results were the following: a) *Yes, and I succeeded*: 53.3% (171); b) *Yes, but I have not succeeded*: 9.3% (30); c) *No, but I have thought about it a few times*: 18.4% (59); d) *No, I am not a nutcase*: 19% (61) [27]. As for videos obtained on YouTube using the keyword “holotrop”, several videos clearly depicting the CG have been viewed up to almost 12,000 times since they were posted. The oldest video was posted in 2007. In most cases, the CG is presented as a group activity.

The motives

In many cases, bloggers have expressed their amazement over the effects of the CG, and a desire to try it – mainly in order to be accepted by their peers and to entertain themselves and others. This idea is demonstrated by a comment in a conversation thread on “holotrop” on the discussion blog Rouming: “That’s really cool. Passing out because of no oxygen. Now that’s gutsy! The best form of entertainment since the Stone Age wedge was invented! I have to try it to be also cool!” (Wolfe, June 7, 2013) [28] (Table 3). Similar motives – entertainment and acceptance by peers – are behind a number of Czech videos available on YouTube, as illustrated by a video called “Holotrop, or how to find entertainment in the halls of residence” (Youtubedrby.eu, January 4, 2015) [29]. The video demonstrates the CG, and after the boy engaging in the activity loses consciousness, his peers start cheering and applauding. Still others have expressed curiosity about the CG: “... because I am just at that stupid age when I want to try out everything, I could not resist and after a while, I tried it after all” [25]. Finally, in a conversation thread on “holotrop” on the discussion blog Zpovědnice (in English meaning “A confessional”), boredom has been mentioned as another reason: “... this was commonly done out of boredom, that is, for example, instead of playing dodgeball” (Novakovaaa, December 22, 2008) [30].

CG techniques

In some cases, information on CG techniques is sought on the Internet, as illustrated in the following entry on the mentioned discussion blog: “Please someone send me an email on how else it could be done apart from pressing on the heart, please, as many different ways as possible, please all of you, write to me” (Syci, September 3, 2009) [26].

At the same time, various techniques have been described on various discussion blogs or clearly demonstrated in Czech videos on YouTube. On the mentioned discussion blog Zpovědnice, one participant recently summarized the techniques in the following way: “Someone simply holds your arteries (you can do it yourself), and when you start seeing black, you just let go and faint. The second way is that someone presses on your chest. First, you get short of breath – either you

Table 3 – Motives behind the “Choking game” mentioned by Czech bloggers

Motive	Comment by the blogger ^a	Original wording of the comment (in Czech)
Entertainment	<i>... it is quite a bit of fun... The best form of entertainment since the Stone Age wedge was invented!</i>	<i>... je to vcelku [sic] sranda... Nejlepší zábava od vynálezu pěstního klínu!</i>
Acceptance by peers	<i>Now that's gutsy! (...) I have to try it to be also cool! ... absolutely epic. Especially when everybody gapes at you like at a funfair attraction.</i>	<i>Tak to je vodvaz! [sic] (...) Musím to zkusit, abych byl taky cool! ... naprosto epik. Obzvlášť když na vás čumý [sic] mrtě lidí jak na pouťovou atrakci.</i>
Curiosity	<i>... because I am just at that stupid age when I want to try out everything, I could not resist... ... the feelings are interesting because they are unfamiliar.</i>	<i>... jelikož jsem právě [sic] v tom pitomém věku, kdy se snažím vše vyzkoušet, neodolala jsem... ... pocity jsou zajímavý [sic], protože [sic] jsou neznámý [sic].</i>
A way to overcome boredom	<i>But in that sanatorium for kids where I was, this was commonly done out of boredom, that is, for example, instead of playing dodgeball. Wolf: and what do you [do] when you are bored??? Perhaps not sports.</i>	<i>Ale v tý [sic] dětský léčebně, kde jsem tehdy byla, se to dělalo běžně z nudy, respektive třeba místo hraní vybíjený [sic]. Wolf: a co jako ty [děláš], když se nudíš??? Snad [sic] né [sic] sport.</i>

^a All comments were in Czech and were translated into English, while respecting slang expressions.

run or you squat down by a wall while breathing fast without a break, and someone will be checking your heart with their hand. After your heart starts beating really hard, you get up quickly, take a deep breath and hold while someone quickly presses on your chest more or less under your boobs. When you start seeing black, you just simply wave and the person pressing on your lungs lets go...Of course someone must catch you before you fall to the ground” (Koňoplavvvv, November 15, 2015) [30].

Some people want to know whether the CG is the same as “holotropic breath work”, as is illustrated by the following question on the mentioned discussion blog Rouming: “What is it? I squat down by the wall, breathe deeply, get up and tighten my anus as much as possible. Is this holotropic breathing? How EXACTLY is it done?” (Cecek1, June 7, 2013) [28]. In the above-mentioned conversation thread on the blog Zpovědnice, different opinions concerning this question were identified: “It is called holotropic breathing and it was invented by Stanislav Grof” (Meggie, December 22, 2008) [30], and in response “Meggie, this has nothing to do with holotropic breathing, apart from the similarity between the terms. After all, they have described this as some kind of strangling...” (Bilej Tygr, December 23, 2008) [30].

Additional confusion arises from the fact that “holotrop” seems to be used to denote marijuana smoking as well, which illustrates another comment on the blog Zpovědnice: “I also have to mention that more often, it is called ‘Flash’, that is ‘blinding’, rather than ‘holotrop’; ‘holotrop’ is better used for smoking pot, but ok, ‘holotrop’ between buddies” (Koňoplavvvv, November 15, 2015) [30].

CG effects

On the mentioned blogs, various physical effects – either experienced by the bloggers themselves or observed – have been mentioned (Table 4). One person even shared a comment on the nameless blog that a person had died [26]. However, she had not witnessed the event: “... a buddy’s buddy was doing it, and he did not come round. He just died!” (Terka, October 8, 2011) [26]. In addition to physical effects, some comments contained a description of other states and experiences during the CG, such as “dreaming”, “seeing a spiral”, etc.

Opinion on the CG

Some Czech bloggers have expressed their opinion on the CG based on their experience with it. Some bloggers have expressed ambivalence: “Although I have tried it and have realized that nobody is acting it, I am neutral on this topic. I do not support it, but at the same time, I do not resist it” [25]. This particular blogger added that she recommended trying it only once because of unpleasant physical effects. A number of other bloggers recommended the CG while taking precautions, as illustrated by a comment on the nameless blog [26]: “I have tried it already many times. It is absolutely incredible, just heavenly. You just should not try it completely alone; I was trying it alone, and hit my head on the table... And one more thing, if you do it more than five times in a row, then most people end up in hospital” (Freya, May 31, 2014) [26]. However, in the same conversation thread, others refuted any health risks or were willing to engage in the activity despite the risks: “... you come round in 99.999%

Table 4 – Physical effects of the CG mentioned by Czech bloggers^a

Loss of consciousness	Stopped breathing	Stomach ache
Musculoskeletal trauma	Feeling dizzy (head spinning)	Pain
Head trauma	“Pins and needles” on the tongue and the fingertips	Seeing black
“Shaking”	Inability to remember things and/or being confused (after regaining consciousness)	Lower extremity paralysis ^a
Falls	Headache	Death ^a

^a Not a direct personal experience or observation.

of the cases...just super, tomorrow I'll be doing it again!" (Alias, September 12, 2009) [26].

Nonetheless, others expressed concern over the safety of the CG. In the mentioned conversation thread on the blog *Zpovědnice*, the following comments were identified: "I would say that is must be quite dangerous... but I have no experience" (Cmos, December 22, 2008); "I witnessed it, 4 years ago... In my opinion, it is dangerous" (Novakovaaa, December 22, 2008) [30]. On the nameless blog, one blogger expressed concern with an even more forceful attitude: "Do not try this, NONE of you, it is a very dangerous thing – you may not come round" (Doktor, February 26, 2011) [26].

Discussion

As mentioned, using English keyword lists, the accessed worldwide databases retrieved no scholarly publications on the CG in the CR, despite the fact that during our search, no language restrictions were used. The Czech scholarly literature mentions "self-strangulation" ("sebeškrcení") and discusses it in general terms; it is described as a behavioural manifestation of deliberate self-harm and self-injury, i.e. a behaviour that people sometimes use to cope with difficult feelings and distressing life experiences [18, 19]. This view is in stark contrast with the motives behind the CG described by authors from other countries, i.e. peer pressure, curiosity, entertainment, and the desire to overcome boredom [3, 4, 5].

Still, the existence of the self-strangulation "game" (i.e. a form of "entertainment") has been brought to light by several brief Czech news media reports. However, they have reported on the CG occurring abroad. One of them, entitled: A dangerous "game" (Nebezpečná "hra" in Czech), informed about the occurrence of the "choking game" ("hra na škrcení") in Austria [31]. The author briefly described the techniques and risks and provided selected mortality statistics from France, Belgium and the USA. According to the report, the Austrian public was alarmed by this new "entertainment" among adolescents. The author added that in spite of this, drawing attention to the CG had been met with criticism due to fears of copycat activity. Nonetheless, a physician and a school board in the Austrian district of Braunau had contacted the media in an attempt to warn of its risks [31].

Our Google and YouTube search revealed that the self-strangulation "game", aiming mainly to "entertain", is being practiced in the CR as well. Based on the date of the earliest posts on both YouTube (videos) and Google (discussion blogs), it has existed in the CR since at least 2007 and new comments and videos are being posted even now (the latest videos were uploaded approximately 4 months ago).

Just like in other countries, it seems to be practiced in a variety of settings, including in school. The recent finding from France that "everybody" in school engages in the CG [8, p. 48] is very similar to the mentioned observation made by a Czech blogger that the CG "is spreading in school like a virus" [25].

During our Google and YouTube search, knowing the slang word for the CG ("holotrop") was important as among Czech adolescents, other terms seem to be used only rarely. This particular CG terminology appears to be unique to the CR; the reasons are unknown. Stanislav Grof, who developed the idea of the "holotropic state" and "holotropic breath work", is of Czech origin and his work is known in the CR despite his long career in the United States. However, a clear connection between his work and the selection of the term "holotrop" to denote the CG has not been found. Nonetheless, some bloggers have equated "holotrop" (the CG) with "holotropic breathing", referring to Grof, which is highly inaccurate. Furthermore, using "holotrop" to describe the CG has also caused confusion among some participants of the discussion blogs on "holotrop" because the term appears to mean either the CG or smoking marijuana. In fact, in some cases, one understands only from the context which of the two practices is being "discussed".

Finally, we hypothesize that because young Czechs use the slang word "holotrop" rather than "official" terminology to describe the activity, the magnitude of the problem has remained hidden. Consequently, its occurrence in the CR has received only marginal attention in scholarly publications. Moreover, the real motives, well described in some of the foreign scholarly sources – entertainment, curiosity, peer pressure, desire to overcome boredom [3, 4, 5] – have not yet been clearly described in any of the scholarly publications on this issue in the CR although they seem to prevail.

The issue of the CG is relevant to the nursing profession. Nursing assessment includes the area of safety and protection – it is also one of the domains (Domain 11) listed in the publication NANDA International Nursing Diagnoses: Definitions and Classification 2015–2017 [32]. The domain contains, in Class 3 – Violence, the diagnoses Risk for other-directed violence and Risk for self-directed violence [32]. These diagnoses describe individuals' vulnerability to behaviours that can cause harm (physical, etc.) to self or others. Interestingly, the listed risk factors include "engagement in autoerotic sexual acts" [32], which may include self-choking by adults during sexual stimulation to heighten sexual pleasure [33]. Although, as already mentioned, this so called "autoerotic asphyxia" (AEA) is distinguished from the CG (which is not sexual in nature), some sources view the CG practiced by children and adolescents as an early manifestation of AEA [33]. Furthermore, it is worthwhile to mention the diagnosis Risk for suffocation (in Class 2 – Physical Injury). This diagnosis concerns individuals "vulnerable to inadequate air availability for inhalation, which may compromise health" [32, p. 402]. While Herdman and Kamitsuru's publication does not list engagement in the CG as a possible risk factor for any of the above-mentioned diagnoses, other nursing experts have already started paying attention to the issue, e.g. Doenges et al. [34] and Muscari [33]. Doenges et al. have discussed the CG in relation to the mentioned diagnosis Risk for suffocation. To promote wellness, they recommend that nurses "collaborate in community public health education regarding hazards for children (e.g. ...

discussing the dangers of... playing choking or hanging games with preteens...)” [34, p. 844].

The limitation is that Google and YouTube allow only partial use of specific filters in order to provide homogenous results. For example, YouTube enables one to select the Czech language; however, this only changes the language of the site and not the text entered by users. Consequently, many irrelevant results (i.e. results in other languages) were found. The problem was more pronounced on YouTube than on Google.cz. Furthermore, it is possible that the quick scan of the obtained results failed to identify some valuable sources.

To summarize, while more CG research is needed internationally, CG research in the CR has not yet even begun. In the CR, studies are needed to examine the prevalence of the phenomenon, the context in which it takes place as well as the associated motives. In addition, it is important to study CG awareness among health care professionals including nurses as well as among parents, teachers, etc. Ultimately, effective strategies aiming to recognize and prevent this dangerous activity need to be identified. Nurses should be involved in this process.

Conclusion

In the CR, the “choking game” has received only marginal attention. So far, scholarly publications have mentioned “self-strangulation”, i.e. a deliberate behaviour that people sometimes use to cope with difficult feelings and distressing life experiences, which can lead to self-harm and self-injury. This is in contrast to the “choking game” engaged in by young people for reasons that include peer-pressure, curiosity, and a desire to entertain and overcome boredom, as has been described by a number of experts in other countries.

However, using the slang word “holotrop”, our Google and YouTube search has retrieved a number of Czech discussion blogs and videos on the CG. It appears that the CG has been practiced in many contexts, including in school. In some settings, it may be quite prevalent. The mentioned motives are in line with the motives described in foreign scholarly publications. Czech bloggers have experienced or observed various CG effects; however it is not clear whether the activity has resulted in any deaths. A diverse array of opinions on the activity has been identified, ranging from approval of the activity to clear warnings about its risks. We hypothesize that because young Czechs use slang (“holotrop”) when discussing the activity, the magnitude of the problem has remained hidden.

Studies are needed to identify strategies that would aim to recognize the CG and to understand its specifics in the CR. Ultimately, effective preventive measures need to be identified. Nurses should collaborate in tackling this dangerous practice.

Conflict of interest

The authors have no conflict of interest to disclose.

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