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# **Sexuality and Sex Education in Individuals with Intellectual Disability in Social Care Homes**

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Stanislava Listiak Mandzakova

Additional information is available at the end of the chapter

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## **1. Introduction**

Sexuality is a natural part of person's life, which accompanies a person throughout his/her live. Unfortunately, rules concerning sexuality in individuals with intellectual disability (ID) are not the same as those imposed on the rest of society. Generally, sexuality in people with ID is considered a problem. There are still persistent myths and prejudice in this area related to incorrect thoughts, that individuals with ID are asexual or they remain eternal children or, on the contrary, they are sexually impulsive. Individuals with ID are often not allowed to express themselves in the area that has a sexual content.

This chapter aims to analyze specific aspects of quality-of-life in individuals with ID with regard to sexuality, partnerships, and sex education implementation in social care homes (SCHs), and to identify some of the determining factors. The current study does not deal only with “low-risk” sexual activities, e.g. kissing and cuddling but also with sexual activities that present pregnancy risk, disease transmission or injury of the sexual partners.

The purpose of the current study is a deeper insight and understanding of sexuality in individuals with severe intellectual disability (SID)<sup>1</sup> in SCHs, and sex education implementation in these people and aims to improve their life in SCHs.

## **2. The current status of knowledge — Theoretical and research findings**

In Slovakia, the attention to the issue of sexuality in individuals with ID has been studied sporadically. Sexuality and partnerships in people with ID are very complex. Only few acquire such extent of independence that enables them to live with a natural partner and sex life

without their parents or care assistant's supervision. Prevendárová [17] found that more than 80% of individuals with ID stay at the mental age of eight. According to this author [17], it is necessary to understand their sexuality manifestations, e.g. kissing or simply a feeling of closeness, in a similar way. A similar opinion has been expressed by Škorpíková [24] who believes that many individuals with SID do not desire or need an intercourse in their life. They find themselves in so-called pregenitality, which is a form of child sexuality. According to this author, people with SID prefer caressing, cuddling, and exhibition to an intercourse. Šurabová [24] has identified the following specific characteristics of sexuality in individuals with SID:

- Individuals with SID do not incline towards so-called total sexual behavior that involves coital contact. As for the erotic behaviors, tactile contacts and snuggling—rather than contact satiation, seems to be sufficient for them.
- If behaviors resembling masturbation occur, it is only a contact with one's genitals accompanied by pleasant feelings, but it is not a specifically conscious behavior.

From these observations, it can be concluded that, in comparison to the general public, individuals with SID generally do not possess offensive or active sexual behavior. However, not everyone agrees with these conclusions. For instance, Mellan [23] emphasizes that it is incorrect to assume that a need for sexual life is not created in individuals with ID. Sexuality could only be imperfectly expressed or delayed. Accordingly, Šedá [24] concludes that, an individual with SID cannot usually cope with his/her own sexuality, does not have an opportunity to satisfy it, and often does not know how to do it. In regard to the above-mentioned contradictory opinions, we find it necessary to study sexuality in individuals with SID. In the following sections we introduce some of the findings, in particular international research studies of sexuality and its manifestation in individuals with SID that can help us better understand this issue in terms of Slovak research.

There is a paucity of studies around the world evaluated in a large and representative sample concerning the question that what individuals with ID expect from sexuality, in terms of intercourse, emotions, marriage, and children upbringing. Our aim is to review and evaluate research studies carried out on the subject of sexuality in people with ID.

Perhaps because of society's attitudes to sexuality in individuals with SID, this topic has not been studied extensively. Studies of sexuality problems, and therefore of reproduction, have for many centuries been restricted in the European territory mostly by an influence of religious opinions. Perhaps it is not necessary to specify in detail, rigid, non-scientific, and still spread and fiercely defended opinions of the Church on questions of sex life, reproduction, and in particular attempts to control and regulate it with birth control methods. Despite the significant changes in people's attitude particularly after World War II, sexologists working in this field have identified areas around the world that still have no clear understanding of this issue, particularly if the results should threaten the existing attitudes. In the following section, we will conduct a review of some of sexuality research studies in individuals with SID that has formed the basis of our research.

Our investigation shows that many individuals in institutional care have experienced some sexual activities, even though the range of their sexual behavior is probably limited partially

due to their sexual repression [23]. Timmers and colleagues [23] found that 65% of men and 82% of women with ID had had sex, although the frequency was much lower in comparison to others. Unfortunately, problems such as low sample size, inability to describe the seriousness of disability, and relying on intermediated reports about behavior of individuals with ID (not obtained by direct observation or statements of individuals with ID) weaken the strength of research studies in this field.

Conod and Servais [1] believe that expectations of individuals with ID regarding sexuality and its manifestation differ significantly in regard to the level of their ID. According to these authors, studies specifically concerning sexual activity in individuals with ID found that, 50% of women with moderate to severe ID, at age 11 to 23, had had sex. McGillivray and colleagues confirmed these findings [13] showing that, out of 60 interviewed adults (35 men and 25 women) with mild to moderate ID, 42% were sexually active. Similarly, Diederich and Graecen [3] via email interviews with institutions found that 41% of adults with SID in institutional care in the Paris area had already had sex. Using a similar methodology [5], it has been reported that 48% of directors of public residential institutions with less than 50% representation by individuals with SID point to the fact that sexual relations have occurred, whereas in 15%, it has been considered to be common. Obviously, these activities depend not only on expectations of individuals with ID, but also on opportunities provided by their social environment.

In a study by McGillivray [13], 82% of women with moderate ID living in coeducational institutions already had sex, whereas in non-coeducational institutions only 4% of individuals have had sex. Another finding points to the fact that 14.5% of individuals with mild and moderate ID without previous sexual experience claim to consider becoming sexually active as soon as an opportunity arises.

Pueschel and Scola [18] interviewed parents of 73 teenagers with Down syndrome (36 men and 37 women) and concluded that more than half of the teenagers expressed an interest in the opposite sex, masturbation was registered in 40% of men and 22% of women, only four parents stated that their son or daughter had ever mentioned desire for an intercourse. Contradictions with McGillivray's results are likely caused by methodological differences between the two studies (interviews with individuals with ID versus parents), as well as by individualities of people with Down syndrome in terms of their sexual expectations.

The knowledge of individuals with ID about sexuality and related topics differ in those living in institutional and non-institutional environments, but overall is very low [12]. The findings from the two studies in author's opinion suggest that:

- Young individuals living in coeducational environment have a slightly higher level of knowledge than those living in non-coeducational institutions. The more accurate predictor of cognition is mental age rather than IQ or real age.
- The young individuals with or without a handicap have a rather low knowledge level. Individuals with a handicap, however, have a bigger chance to obtain information from their contemporaries (often ill informed) than from reliable sources, such as books by experts. The access to the exact information is limited and it increases a need for complex programs of sex education for this population.

In many developing countries, the premarital sexual activity is much less socially acceptable and therefore it is likely to expect and assume a significant difference in sexual expectations also in people with ID.

Another possible factor influencing human sexual behavior is the gender. It has been shown that sexual behavior is influenced by biological factors as well as by the influence of parental upbringing, attitude of society to men and women and, by economical factors [18].

Next, we present an analysis of attitudes to sexuality in individuals with ID, as attitudes are very important elements and they influence our behavior and actions. In the context of our study, we refer to SCHs' employees, who are in touch with individuals with SID.

McCabe [12] studied attitudes of both parents and care assistants. The findings about care assistants' attitudes are contradictory – those working in institutions are often aware of the fact that sexual activity exists, although not every time they are able to acknowledge and deal with it. The author explains the differences in care assistants' responses by such factors as environment in which a care assistant works, the choice of questions asked, and the time and the country in which data are collected.

As for the Slovak research studies, we can refer to a survey by Števková [10] focused on attitudes to sexuality in individuals with ID. The results of this though non-representative survey suggests that emotional manifestations of individuals with ID are not accepted and there is absence of awareness.

At the end of this theoretical analysis, it can be concluded that the Kinsey Reports on human sexual habits based on personal interviews, formed an inestimable basis of sociological information about types of sexual manifestation. The evaluation of the work-study could considerably expand the research on sexual manifestations and sex education implementation in the general public and also in individuals with SID.

### **3. Research of the quality-of-life of individuals in SCHs in regard to sexuality, partnerships, and sex education**

#### **3.1. Research problems and objectives**

The main Aim of our study was to analyze and describe particular aspects of quality-of-life in individuals with SID in the area of sexuality and partnerships, and identify factors determining the individuals' sexuality and sex education in SCHs.

Our main aim has been divided into four sub aims:

1. To identify quality indicators of social services provided by institutions in general (a size of an institution, coeducation, a number of individuals sharing a room, employees – a number, education, etc.).
2. To obtain new information about the sexuality in individuals with SID in terms of intensity and frequency of their occurrence.

3. To identify attitudes of employees to sexuality and sex education in individuals with SID and to describe differences in terms of their sexual education.
4. To study the level of awareness of SCHs' employees in sexuality and sex education in individuals with SID.

### **3.2. Research hypotheses and justification**

In relation to research on individuals with SID behavior in the area of sexual content, we propose three hypotheses:

According to our hypotheses, specific aspects of sexuality will vary in terms of:

1. Gender; men with SID will show a significantly higher frequency and intensity of the sexuality in comparison to women with SID.
2. The severity of ID; individuals with moderate ID will show significantly higher frequency and intensity of the sexuality in comparison to individuals with SID.
3. Institution's coeducation; individuals of coeducational institutions will show a significantly higher frequency and intensity of the sexuality in comparison to individuals of non-coeducational institutions.

In respect of SCHs employees' attitudes to sexuality in individuals with SID, we have assumed that attitudes of employees to sexuality in individuals with SID will vary in terms of:

4. The presence of a training program in sex education; employees who have completed a training program in sex education will show significantly more positive attitudes to sexuality in individuals with SID in comparison to employees who have not completed a training program in sex education.
5. The attitudes of male employees; male employees will be significantly more positive to sexuality in individuals with SID than female employees.
6. The attitudes of employees to sexuality in general public; the more positive attitudes to sexuality in general, the more positive attitudes they will have to sexuality in individuals with SID.
7. The type of sexual behaviors; employees will show significantly more positive attitudes to non-reproductive sexual behavior than parenthood of individuals with SID.

### **3.3. Justifications**

1. As Raboch [19] and Oakleyová [16] reported, the sexual behavior is influenced by biological factors, parental upbringing, general public attitudes to men and women, and economical factors. According to Weiss and Zvěřina [25], men mention higher need and frequency for sexual satisfaction than women. On the other hand, as the authors note,



there is only little evidence that differences in a sexual activity between men and women would be conditioned biologically.

2. Formulating hypothesis 2, there are studies that suggest sexual behavior in a person with ID correlates with the severity of the ID. Mellan [14] believes that sexual behavior in individuals with SID differ from other people particularly because there is no phase of rational barriers. According to Matulay [11], in general, the more serious ID, the less sexuality. Another argument is that most individuals with SID have seriously defective motor skills or other accompanying disabilities, defective reproductive organs, hormonal disorders – resulting in the possible distortion of sexuality. However, whilst describing characteristics of the sexuality in individuals with moderate and SID, many commonalities can be detected. For these reasons, we have decided to analyze more deeply differences in sexual behavior of individuals with SID in terms of their ID.
3. We assume that individuals of coeducational institutions will show significantly higher frequency and intensity of sexuality in comparison to individuals of non-coeducational institutions. Also, several research studies suggest that many individuals in institutional care have experienced some sexual activities, even though the range of their sexual behavior is probably limited partially due to their sexual repression [12]. This situation can occur in non-coeducational institutions where individuals do not have a possibility, or such possibility is considerably limited, to meet the opposite sex. It can influence the intensity of sexual manifestations as well.
4. It has been suggested that less educated participants, express less positive attitudes to sexuality [2].
5. We studied sexuality in men and in women separately, as sexual expression in women and men is traditionally different and attitudes could be influenced by this factor [2]. According to Weiss and Zvěřina [25] gender has the most significant influence on liberalism and restrictions of sexual attitudes. Despite the fact that many authors discover that attitudes in men and women to sex questions have over the last decades equaled, most research studies testify on a double standard for a male and female sexual role and its reflection in participants' attitudes. Almost all authors agree that attitudes of men are more liberal than attitudes of women in this area.
6. We assume that, the more positive attitudes that employees show in general, the more positive their attitudes to sexuality in individuals with SID will be [2]. Attitudes to sexuality are then often influenced by the personality of experts and that can influence the attitudes to individuals with SID.
7. Study by Cuskelly and Gilmore [2] showed that employees were least positive to questions of parenthood than to other aspects of sex life. We have reached similar conclusions with a questionnaire focused on attitudes of teams of interdisciplinary experts of SCHs' employees, psychologists, psychiatrists, and gynecologists. Most experts did not accept the possibility that individuals with SID have their own children [8].

## 4. Operationalization of variables

In terms of evaluation of the intensity of the sexual behavior in individuals with SID, we have regarded as sexuality manifestations not only actions of explicitly sexual character, such as intercourse or masturbation, but also dreams, romantic thoughts and temporary or permanent affection, a need to look attractive to a person whom a person with ID grows fond of and whose interest he or she wishes to arouse. To perform data analysis, we have divided sexual behavior manifestations of individuals into two levels:

1. Pregenitality (sexuality does not occur) – asexuality, no interest in any sexual manifestations, manifestations on the level of tactile contacts, caressing, cuddling, touching, snuggling, stroking – rather tactile satisfaction.
2. Sexuality occurs – interest in masturbation, coital contact, etc.

We have made an overview of sexuality manifestations in the first and second level (Table 1).

Code	Sexuality manifestations of the first level	Code	Sexuality manifestations of the second level
K1	Cuddling of same-sex individuals	K5	Touching intimate parts of a same-sex individual
K2	Cuddling of opposite-sex individuals	K6	Touching intimate parts of an opposite-sex individual
K3	Stroking a same-sex individual	K10	Watching erotic pictures and porn
K4	Stroking an opposite-sex individual	K15	Kissing a same-sex individual
K7	Desire to look attractive to a same-sex individual (taking care of one's appearance, highlighting femininity, masculinity)	K16	Kissing an opposite-sex individual
K8	Desire to look attractive to an opposite-sex individual	K17	Indecent public exposure
K9	Listening to love songs, songs about being in love	K18	Sexual assaults (attacks)
K11	Blushing in the presence of the same sex	K19	Intercourse (coitus)
K12	Blushing in the presence of the opposite sex	K20	Masturbation
K13	Individuals rivalry	K21	Fetishes (touching nylons, etc.)
K14	Manifestations of joy, happiness in the presence of the opposite sex		

**Table 1.** Coding of the chosen sexuality manifestations of the first and second level

Whilst verifying our hypotheses, we monitored differences in specific aspects of sexuality – in terms of their frequency and intensity.



## 5. Sampling characteristics

A sample group was formed of 459 individuals with ID. In terms of institutional coeducation, 61.1% of individuals lived in coeducational and 15.5% in non-coeducational institutions. In terms of gender, the representation of individuals was relatively equal – 50.3% (221) of individuals were males and 49.7% (218) were females. Out of the total number of individuals, 49.8% (225) of individuals had moderate ID, 31.2% (141) had SID and 1.3% (6) had profound ID. The second sample group included 259 SCHs' employees, 76.5% (198) were females and 16.9% (44) were males, and 6.6% (17) of respondents did not specify the gender. The age was specified in total of 214 employees (45 did not specify it). The youngest respondent was 20, and the oldest was 60 years old. The length of experience was specified in total of 47 employees (212 did not specify it). The average length of experience was 9.17 years; the shortest was one year, the longest 26 years. The length of experience in an institution was specified in total of 219 employees (40 did not specify it). The shortest length of experience was less than one year and the longest was 36 years. Out of the total number of employees, 73.4% (190) were single, 10.4% (27) married, 8.5% (22) stated an option "other" (a widow/divorced) and 7.7% (20) of employees did not specify their family status. In terms of religion, 78.4% (203) of the respondents were religious, 8.1% (21) non-religious, 7.7% (20) nondescript, and 5.8% (15) did not specify it.

## 6. Research methods

In the course of our research, we used the following methods: direct non-participating observation, questionnaire, and sexual stories – the statements of employees about individuals with SID.

**Observational studies.** To clarify and describe sexual manifestations, we mainly used direct non-participating observation. Here we focused on developing suitable observation-coding sheets and their records. Observation and the records of sexual manifestations of individuals with SID were enabled by employees volunteering to participate in this study. The first part contained detailed instructions on how to fill it in and data about individuals and institutions. The main part of the observation-coding sheet was formed of: the frequency table of sexual manifestations in SCHs – with the aim to study in details the sexual behavior in SCHs. The employees over a 7-day period observed and marked into an observation sheet in an appropriate column (day and hour) with an assigned symbol/code, observed sexual behavior of individuals in everyday activities during the entire day. The symbols were listed in a separate appendix and divided into individuals-to-individuals sexual behavior and individuals-to-employees sexual behavior. If an observed manifestation was not recorded in the table, the respondents were instructed to complete it and mark its frequency in the table (on appropriate days and hours).

1. A Table listing sexual manifestations of an SCH client – with the aim to identify consequences of coded sexual behavior (reactions of employees and subsequent reactions of

individuals). The employees were supposed to characterize more closely the specific observed sexual behavior of a client and their eventual reactions in the provided table.

2. The overall characteristics sheet of sexual behavior of a client – the purpose of the third part of the observation-coding sheet was to obtain materials to create sexual stories or statements on sexual behavior of individuals. The employees were supposed to give characteristics of sexual behavior of individuals in this part, based on long-term observations of a client.

## **7. Attitudes to Sexuality Questionnaire (ASQ)**

Given the fact that there are rather unfavorable attitudes in public to sexuality in individuals with ID, we were interested in SCHs employees' attitudes. To study these, we used a standardized ASQ questionnaire – Attitudes to sexuality questionnaire (individuals with an ID) by Cuskelly and Gilmore [2]. ASQ consists of two parts:

1. Attitudes to sexuality questionnaire (Individuals from the general public: ASQ – GP).
2. Attitudes to sexuality questionnaire (Individuals with ID: ASQ – ID) – This part contains 34 questions divided into four aspects: sexual rights, parenthood, non-reproductive sexual behavior, and self-control.

Respondents answered using a 6-point scale, varying from "strongly agree" to "strongly disagree". Both questionnaires contain questions concerning sexuality in women and sexuality in men, answered by respondents separately. The advantage of the questionnaire is a wide range of areas, which are available to select for research. The disadvantage could be its length that could discourage potential candidates.

## **8. The employees' opinions on the sexuality of individuals with SID and sex education in SCHs questionnaire**

The questionnaire was designed with the aim to obtain data concerning sexuality and sex education in SCHs. The analysis was relatively a time-consuming process that went through several stages and relied on various sources of data. Thus, we obtained a holistic view of factors that can influence result. Once the questionnaire had been reviewed, a two-phase pilot study began with the aim of confirming whether respondents understood questions and were able to answer them without problems. The questionnaire items contain categories and phenomena elicited within pre-research. The questionnaire monitored the following research areas:

1. Quality indicators of social services provided by a particular institution (a size of an institution, coeducation, a number of individuals sharing a room, education of employees, etc).
2. Sexuality and its manifestations in individuals with SID in SCHs.

3. Training and awareness of employees and individuals in SCHs in terms of sexuality and sex education of individuals with SID.
4. Opinions of employees on sexuality and sex education in individuals with SID and the current situation in sex education implementation in SCHs.
5. Problem in sexuality and sex education and ways of solving them in a particular institution.

The questionnaire, that was designed for this research consisted of 46 items. Despite the fact that we were aware of somewhat broad questionnaire, we were compelled to use the items in such quantity in regard to absence of valid data to build on, and rather broad-spectrum aims that we had set. Respondents were instructed via a letter containing essential instructions to fill in the questionnaire. The questionnaire items were mostly structured in such a manner, that respondents were offered a certain number of predefined answer choices. The questionnaire consists of mostly semi-closed items and respondents were able to fill in the offered answers and their own opinions in an option *other*. Besides answer choices, there were also unstructured items in the questionnaire to allow respondents formulate their own answers. It should be noted that in the Slovak Republic, such research of sexual behavior of individuals with SID and the implementation of sex education in SCHs has been generally missing.

## 9. The statements — Written sexual stories of SCHs' employees and individuals with SID

To be complete, the information was acquired not only from respondents' point of view through the questionnaire, but primarily from providers and users of social services. This part was carried out through interviews, using a recorder with a transcription following.

## 10. Research results and interpretation

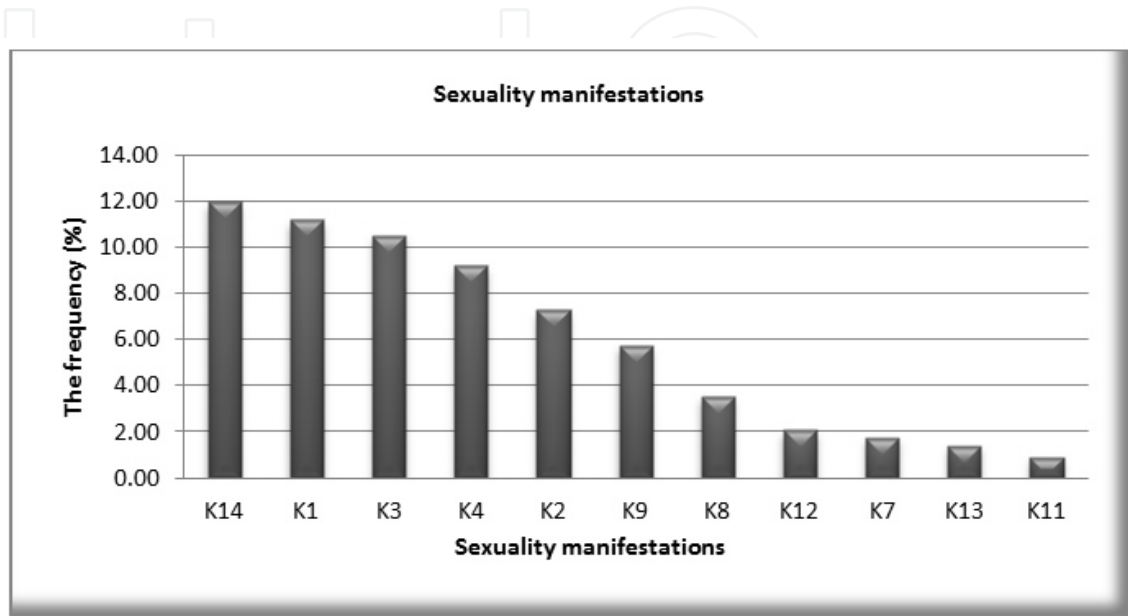
### 10.1. The first procedure results: an analysis of the sexuality of individuals with SID

In regard to outlined disagreement of experts and with the aim to describe the sexuality of individuals with SID in SCHs and to draw conclusions, we will interpret the results using observation-coding sheets.

*The first phase of analysis: the general interpretation of the frequency of sexuality manifestations occurrence in individuals with SID*

We focused on the general interpretation of the frequency of sexuality manifestations occurrence in 459 individuals in SCHs. There were in total 3457 sexual manifestations of individuals-to-individuals with SID registered. From the general evaluation of the observation coding sheets we found that there were 68.8% (2273) of sexuality manifestations of the first level (so-

called pregenitality) in the following order: manifestations of joy, happiness in the presence of the opposite sex (12%); cuddling of same-sex individuals (11.2%); stroking of a same-sex individual (10.5%); stroking of an opposite-sex individual (9.2%); cuddling of opposite-sex individuals (7.3%); listening to love songs, songs about being in love (5.8%); other manifestations of this level were registered with an occurrence of less than 5% (Figure 1).



N – the number of sexual manifestations, K1 – cuddling of same-sex individuals, K2 – cuddling of opposite-sex individuals, K3 – stroking of a same-sex individual, K4 – stroking of an opposite-sex individual, K7 – desire to look attractive to a same-sex individual (taking care of one's appearance, highlighting femininity, masculinity), K8 – desire to look attractive to an opposite-sex individual, K9 – listening to love songs, songs about being in love, K11 – blushing in the presence of the same sex, K12 – blushing in the presence of the opposite sex, K13 – individuals rivalry, K14 – manifestations of joy, happiness in the presence of the opposite sex. The results reflect representation of the first level manifestations in individuals with SID.

**Figure 1.** The frequency of the first level sexuality manifestations in individuals with SID toward other individuals.

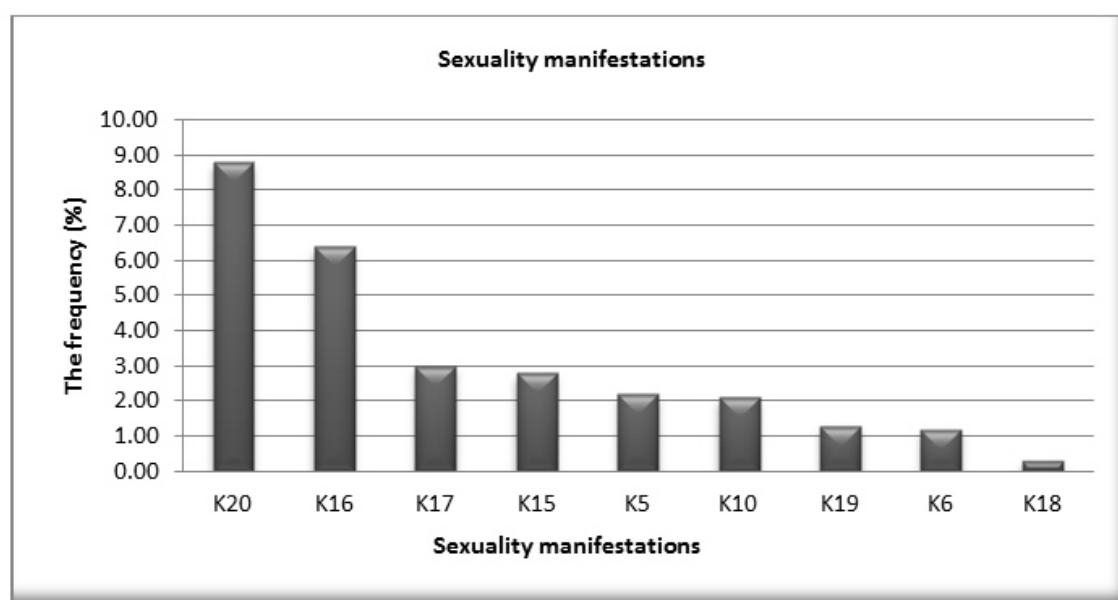
Some of the registered sexuality manifestations of the first level are demonstrated through statements of SCHs’ employees:

**A 34-year-old female with SID.** *The client likes to groom herself in front of a mirror. She blushes when an opposite-sex client comes. During the day she cuddled his waist more times. She listens to love songs and smiles while doing it. In the evening she got changed more times and watched herself in a mirror again, checking her look.*

**A 39-year-old male with moderate ID.** *The client listens to love songs. He expresses a lot of joy while doing it. He is happy when they speak in the room about a female client he fancies. He cares about his appearance and he wants to look attractive. He beautifies himself, puts some cream on and combs his hair. He repeats the same ritual several times a day. He smiles and he’s nice, he likes the girls from the next room.*

In regard to the sexuality manifestations of the second level (in total 980, i.e. 28.4% of all manifestations), they primarily consist of masturbation (8.8%), kissing an opposite-sex

individual (6.4%), kissing a same-sex individual (2.8%), touching intimate parts of a same-sex individual (2.2%), intercourse (coitus) (1.3%) (Figure 2).



N – number of sexual manifestations, K5 – touching intimate parts of a same-sex individual, K6 – touching intimate parts of an opposite-sex individual, K10 – watching erotic pictures and porn, K15 – kissing a same-sex individual, K16 – kissing an opposite-sex individual, K17 – indecent exposure, K18 – sexual assaults, K19 – intercourse, K20 – masturbation. The results reflect that besides the first level manifestations there are also manifestations of the second level in individuals with SID. These data show that sexuality occurs in individuals with SID and that individuals with SID are also interested in activities of sexual character, such as masturbation or coitus.

**Figure 2.** The frequency of the second level sexuality manifestations in individuals with SID toward other individuals.

The analysis of the frequency of sexuality manifestations of the first and second level does not include other sexuality manifestation (204, i.e. 5.9% of all recorded manifestations), which was provided by the employees, but without further specification of particular manifestations, therefore, we were not able to specify a relevant level. The results of sexual manifestations of the second level are supported by statements of SCHs' employees:

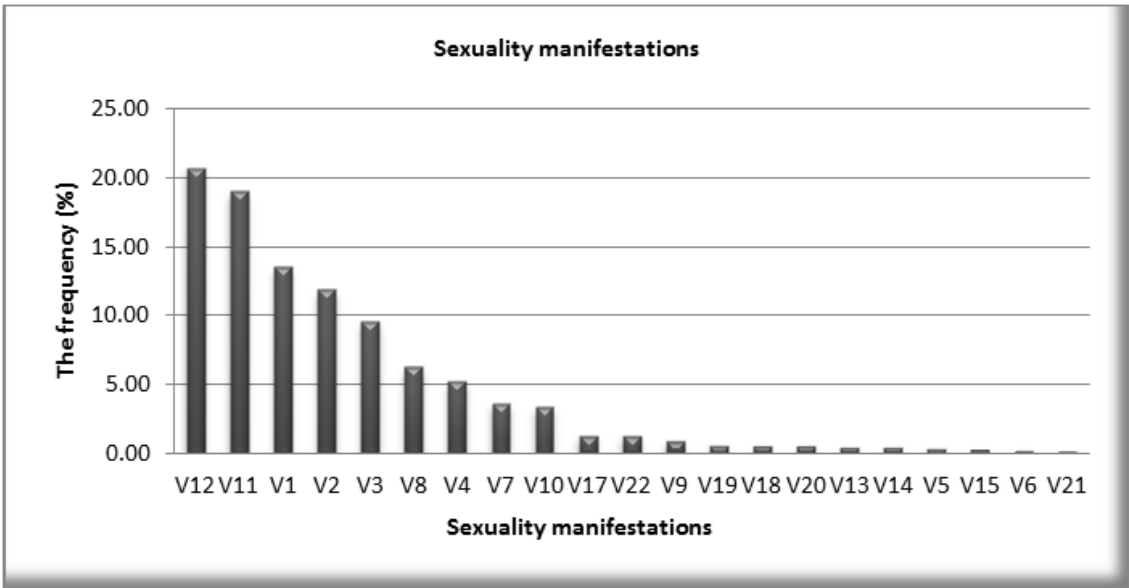
A 44-year-old individual with SID. Besides the stated diagnoses the client has a motor disability, but nonetheless her sexual activity is increased. It has led to coitus with an opposite-sex client; in same-sex individuals it is manifested through cuddling, kissing, etc.

**A 31-year-old individual, with moderate IS.** *The client manifests his sexuality particularly through masturbation on a bed lying flat on his stomach and rubbing on a bed forward and backward (on average twice or three times a day – while taking a rest, after lunch and before bedtime). He behaves as if he needs privacy and dark – he doesn't want anybody to take any notice of him. He fancies uncovered female toes, gazes at them and tries to touch them. In the past, he caught a foot of a new educator who had her toes uncovered and he tried to rub it against his penis. His sexual potency is increased in summer, he's moody and it lasts two or three weeks.*



**An 18-years-old individual with Down syndrome, with moderate ID.***There are mostly non-verbal manifestations; it's mostly difficult to understand his words. He often throws himself at female individuals and tries to kiss them. He's too vivid and hyperactive. He masturbates every day without ejaculating and if it takes him too long, he gets nervous and hits his penis.*

On the basis of our results, we can state that in SCHs' individuals, a sexual need is present and is, in regard to ID and the conditions in which individuals live manifested through the above-mentioned sexual manifestations. Despite that, it is obvious from some of the employees' statements that they classify sexual activities as an asexual manifestation. A very interesting factor that would enable a deeper analysis of sexuality, is perhaps an environment in which individuals live (coeducation, a number of individuals sharing one room, etc.), as well as opportunities to meet each other, be alone, attitudes of employees to individuals' sexuality, etc.



**Figure 3.** The frequency of sexuality manifestations occurrence in individuals with SID toward employees<sup>2</sup>

As seen in Figure 3, in relation to employees, the most frequent manifestation included joy, happiness in the presence of an employee of the opposite (20.7%) or same (19%) sex, cuddling of employees of the same (13.5%) or opposite (11.9%) sex, stroking of a same-sex employee (9.6%), desire to look attractive to an opposite-sex employee (6.3%), stroking of an opposite-sex employee (5.2%). Other manifestations were registered with an occurrence of less than 5%. From the listed overview of the registered sexuality manifestations we draw attention to non-selective sexual behavior of individuals, which is many times focused on employees of the opposite but also the same sex. Here, we present a few examples, documenting this behavior:

**A 22-year-old individual with moderate ID.***When larking and being relaxed, looking at a female educator the client gets ecstatic and reddens. The intensity grows until the moment of physical touch, when a male educator has to step in.*



**A 35-year-old person with SID.** *The client likes listening to love songs. She’s very happy seeing an employee starting his shift. She blushes when a female social worker comes. She beautifies herself, puts some cream on and combs her hair. She repeats the same ritual.*

We found reasons of non-selective sexual behavior in outer (absence of sex education, providing unsuitable models, institutionalized environment, etc.) and inner conditions of individuals with SID (a primary deficit – the total subnormal intelligence, secondary deficits – limited thinking, emotional immaturity, non-independence, lack of experience, non-criticality, suggestibility, inability to differentiate a level of behavioral adequacy, etc.). For these reasons, there is a need to explain to individuals with SID sexual behavior in context, e.g. we do not cuddle all people and we do not cuddle them without a reason. It is obvious, that clear instructions and counseling on how to solve practical problems manifested in relation to individuals' sexual behavior, are primarily necessary for SCH' employees.

**10.2. The second phase of analysis: factors influencing the sexuality of individuals with SID**

Human sexual behavior is primarily determined by biological dispositions. The outer environmental circumstances could significantly modify its particular manifestations. In the second phase of our study, we focused on a finding, whether the sexuality of individuals with SID are influenced by endogenous factors, such as sex and a level of ID. At the same time we detected the influence of an endogenous factor, i.e. the type of the institution in terms of its coeducation on sexuality in people with SID.

**10.3. A comparison of the sexuality of individuals in terms of gender**

In the first hypothesis we were interested whether men with SID would show a significantly higher frequency and intensity of the sexuality in comparison to women with SID. To analyze the nature of research data we used the Anderson-Darling Normality Test, together with a calculation of the basic descriptive characteristics of the samples.

There were in total 221 males and 218 females compared. None of the research samples showed a normal distribution ( $p < 0.05$ ) and therefore we used the non-parametric Mann-Whitney U-test to compare the samples.

Numberofmanifestations(intotal)	N(thenumberofsexualmanifestations)	Median
Men	221	5.000
Women	218	9.000

Point estimate for ETA1-ETA2 is -2.000

95.0 Percent CI for ETA1-ETA2 is (-4.000; -1.000) W = 44638.5

Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.0027

The test is significant at 0.0027 (p-value) (adjusted for ties)

**Table 2.** The Mann-Whitney U-test coefficients to compare the frequency of sexual manifestations of individuals in terms of gender

Table 2 shows that in our sample, using the Mann-Whitney U-test, the p-value<sup>3</sup> was 0.0027, suggesting that there was a significant difference in the sexuality manifestations between men and women with SID.

Next, we observed differences in the intensity of the sexuality in men and women with SID. To analyze our data, we similarly used the Anderson-Darling Normality Test, together with a calculation of the basic descriptive characteristics of the samples. To compare the samples we used Mann-Whitney U-test. As shown in Tables 3 and 4, there were not significant differences in the intensity of sexuality manifestations between men and women with SID.

Manifestationsofthefirstlevel(intotal)	N(thenumberofsexualmanifestations)	Median
Women	143	6.000
Men	105	6.000
Point estimate for ETA1-ETA2 is -0.000		
95.0 Percent CI for ETA1-ETA2 is (-1.001; 1.000) W = 17623.5		
Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.7478		

**Table 3.** The Mann-Whitney U-test coefficients to compare the first level sexuality manifestations of individuals in terms of gender.

Manifestationsofthesecondlevel(intotal)	N(thenumberofsexualmanifestations)	Median
Women	70	3.500
Men	99	4.000
Point estimate for ETA1-ETA2 is -1.000		
95.0 Percent CI for ETA1-ETA2 is (-1.000; -0.001) W = 5572.0		
Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.2283		

**Table 4.** The Mann-Whitney U-test coefficients to compare the second level sexuality manifestations of individuals in terms of gender.

Based on these results, we suggest that our first hypothesis, in which we assumed men with SID would show significantly higher frequency and intensity of sexuality in comparison to women with SID, has not been confirmed. In this respect, a statement of Weiss and Zvěřina [25] has been proved, suggesting that there is only little evidence that differences in a sexual activity between the genders would be conditioned biologically. According to these, social norms in women prevail regarding a sex and emotions relationship. To obtain a deeper qualitative analysis of the data and as we wanted to obtain the maximum amount of information on differences in sexuality between men and women with SID, we proceeded with the next part studying the differences in the frequency of occurrence of particular sexual manifestations, which were common, and predicted significant differences in terms of their representation in men and women with SID.

Manifestation'scode	Men	Women	Sum	Wstatistics	p-value
K15	61	36	97	241	0.0021*
K9	111	86	197	1055.5	0.0013*
V1	13	148	161	419	0.0074*
V11	16	249	265	244	0.0008*
V12	218	58	276	519.5	0.0012*

K15 – kissing a same-sex individual, K9 – listening to love songs, songs about being in love, V1 – cuddling of same-sex employees, manifestations of joy, happiness in the presence of a same-sex employee, V12 – manifestations of joy, happiness in the presence of an opposite-sex employee, \*p < 0.05 – a statistically significant difference

**Table 5.** Significant effects of gender on the frequency of sexuality manifestations.

As shown in Table 5, in women, there were significantly more manifestations on the level of cuddling and signs of joy and happiness, especially in relation to employees than in men. Men showed more manifestations, such as listening to love songs, songs about being in love, kissing a same-sex individual and manifestations of joy, happiness in the presence of an opposite-sex employee than women.

**10.4. A comparison of sexuality in terms of ID levels**

In the second hypothesis we asked whether individuals with a moderate ID would show significantly higher frequency and intensity of the sexuality in comparison to individuals with a SID. We analyzed the compared groups using the Anderson-Darling Normality Test, together with a calculation of the basic descriptive characteristics of the samples (225 individuals with a moderate ID and 141 individuals with a SID).

Numberofmanifestations(intotal)	N	Median
MID	225	8.000
SID	141	4.000

Point estimate for ETA1-ETA2 is 3.000  
95.0 Percent CI for ETA1-ETA2 is (2.001; 5.000) W = 45584.0  
Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.0000  
The test is significant at 0.0000 (p-value) (adjusted for ties)

MID – moderate ID, SID – severe intellectual disability, N – number of sexual manifestations

**Table 6.** The Mann-Whitney U-test coefficients to compare sexuality manifestations frequency of individuals in terms of ID level.

Based on our results (Table 6), there was a significant difference in the sexual manifestations between individuals with moderate and severe ID.

To study the differences in the intensity of the sexuality in terms of an ID level, we used Anderson-Darling Normality Test, together with a calculation of the basic descriptive characteristics of the samples. As the following calculations of the samples comparison specified in Tables 7 and 8 show, we did not detect significant differences in the sexual manifestations intensity between individuals with moderate and SID.

Manifestationsofthefirstlevel(intotal)	N	Median
MID	149	6.000
SID	48	4.000

Point estimate for ETA1-ETA2 is 1.000  
95.0 Percent CI for ETA1-ETA2 is (-0.001; 2.999) W = 15364.5  
Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.0744

MID – moderate intellectual disability, SID – severe intellectual disability, N – number of sexual manifestations

**Table 7.** The Mann-Whitney U-test coefficients to compare the first level sexuality manifestations of individuals in terms of ID level.

Manifestationsofthesecondlevel(intotal)	N	Median
MID	79	3.000
SID	52	4.000

Point estimate for ETA1-ETA2 is 0.000  
95.0 Percent CI for ETA1-ETA2 is (-0.999; 1.001) W = 5127.5  
Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.6858

MID – moderate intellectual disability, SID – severe intellectual disability, N – number of sexual manifestations

**Table 8.** The Mann-Whitney U-test coefficients to compare the second level sexuality manifestations of individuals in terms of ID level.

On the basis of these results, we suggest that the second hypothesis, in which we assumed that individuals with moderate ID would show a significantly higher frequency and intensity of the sexuality in comparison to individuals with SID, has not been confirmed. Whilst comparing differences in an occurrence of the specific sexuality manifestations, we found that in individuals with moderate ID prevailed sexual behavior manifestations on the level of pregenitality, whereas in individuals with SID were more than in individuals with moderate ID registered activities of sexual character. We consider a difference in the frequency of masturbation occurrence interesting, as it occurred more often in individuals with SID than in individuals with moderate ID. In individuals with SID we found out at the same time a higher frequency of indecent exposure and intercourse occurrence. We can conclude that it was due to the fact that individuals with SID expressed the activities more often in front of the staff than in privacy. However, the differences in the specific sexuality manifestations were statistically not significant.

10.5. A comparison of the sexuality in terms of institution's coeducation

We used the Anderson-Darling Normality Test together with a calculation of the basic descriptive characteristics of the samples. We compared sexual manifestations of 298 individuals of coeducational institutions and 68 individuals of non-coeducational institutions.

Numberofmanifestations(intotal)	N(thenumberofsexualmanifestations)	Median
A coeducational institution	298	4.000
A non-coeducational institution	68	10.000
Point estimate for ETA1-ETA2 is -4.000		
95.0 Percent CI for ETA1-ETA2 is (-5.000; -3.000) W = 50738.0		
Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.0000		
The test is significant at 0.0000 (p-value) (adjusted for ties)		

**Table 9.** The Mann-Whitney U-test coefficients to compare sexuality manifestations frequency of individuals of coeducational and non-coeducational institutions.

As we show in Table 9,  $p < 0.05$ , therefore we may state that there was a significant difference in the frequency of sexual manifestations between individuals living in non-coeducational or coeducational institutions.

It is also possible to conclude from the box graph, that in the coeducational institutions there was an excessive occurrence of sexually active individuals registered, in a non-coeducational institution such individuals did not occur.

Next we studied the differences in the intensity of sexuality in terms of institution's coeducation. Not even in this case the samples showed a normal distribution. Calculations of the non-parametric Mann-Whitney U-test presented in Tables 10 and 11 show, that there were not significant differences in intensity of sexual manifestations in individuals with SID in terms of institution's coeducation ( $p > 0.05$ ).

Manifestationsofthefirstlevel(intotal)	N(thenumberofsexualmanifestations)	Median
A coeducational institution	152	5.000
A non-coeducational institution	49	4.000
Point estimate for ETA1-ETA2 is 1.000		
95.0 Percent CI for ETA1-ETA2 is (-0.000; 2.000) W = 15766.0		
Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.2429		

**Table 10.** The Mann-Whitney U-test coefficients to compare the first level sexuality manifestations of individuals of coeducational and non-coeducational institutions.

On the basis of these results, we suggest that the third hypothesis, in which we assumed that individuals of coeducational institutions would show a significantly higher frequency and

Manifestationsofthesecondlevel(intotal)	N(thenumberofsexualmanifestations )	Median
A coeducational institution	119	3.000
A non-coeducational institution	12	2.000
Point estimate for ETA1-ETA2 is 1.000		
95.1 Percent CI for ETA1-ETA2 is (-1.000; 2.000) W = 7981.0		
Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.3128		

**Table 11.** The Mann-Whitney U-test coefficients to compare the second level sexuality manifestations of individuals of coeducational and non-coeducational institutions.

intensity of the sexuality in comparison to individuals of non-coeducational institutions, has not been confirmed. Further structural analysis of the sexuality enabled us to search for an answer to a question, which of the observed sexual activities are specific for the institution or what are differences in specific sexual behavior of individuals of coeducational and non-coeducational institutions.

Next, we evaluated differences in sexuality manifestations of individuals of coeducational and non-coeducational institutions. The results of the analysis and the statistical difference between the specific sexual manifestations of individuals of coeducational and non-coeducational institutions point to the main conclusions presented in Table 12.

Manifestation'scode	CI	NI	Sum	Wstatistics	p-value
K2	121	1	122	-	-
K4	138	4	142	-	-
K5	47	3	50	-	-
K6	20	-	20	-	-
K10	26	-	26	-	-
K16	90	-	90	-	-
K19	26	-	26	-	-
K20	193	5	198	-	-
V11	74	138	212	921.5	0.0141*

K2 – cuddling of opposite-sex individuals, K4 – stroking an opposite-sex individual, K5 – touching intimate parts of a same-sex individual, K6 – touching intimate parts of an opposite-sex individual, K10 – watching erotic pictures and porn, K16 – kissing an opposite-sex individual, K19 – intercourse (coitus), K20 – masturbation, V11 – manifestations of joy, happiness in the presence of a same-sex employee, CI – coeducational institution, NI – non-coeducational institution, \* p < 0.05 – a statistically significant difference

**Table 12.** Differences in the frequency of sexuality manifestations occurrence of individuals in terms of institution's coeducation.



As shown in Table 12, a statistically significant difference in the frequency of sexuality manifestations was confirmed only in one manifestation, i.e. manifestations of joy, happiness in the presence of a same-sex employee – significantly more in non-coeducational institutions than in coeducational institutions. Despite what has been stated, we want to highlight other differences, which we consider very significant in this regard. In terms of the first level sexuality manifestations, there were in the coeducational institutions more manifestations focused on opposite-sex individuals. Whilst observing the frequency of sexuality manifestations occurrence of the second level, we highlight a significant difference in implementation of masturbation, registered in the individuals of the coeducational institutions more often than in the individuals of the non-coeducational institutions, and in implementation of an intercourse, similarly registered more often in the coeducational than in the non-coeducational institutions. In non-coeducational institutions, as shown by other studies, sexual behavior on the level of masturbation or an intercourse is probably limited, partially due to sexual manifestations repression of the individuals.

11. The second procedure results: an analysis of SCHs employees' attitudes to sexuality and sex education in individuals with SID

11.1. The first phase of interpretation: the interpretation of employees' attitudes

Here we focused on the interpretation of employees' attitudes to sexuality in individuals with SID. The complex analysis including all the sexuality concludes an ambiguous evaluation of sexuality and sex education in individuals with SID by SCHs' employees. This suggests that attitudes of employees to sexuality in individuals with SID are neutral.

In the next part, we present results of the interpretation of employees' attitudes to particular sexuality aspects in individuals with SID, which are included in our attitudes questionnaire.

Thesexualityaspects		Scale 1- 3 - 6
		P———— N
1.	Sexual rights of individuals with more severe ID	3.5385*
		P———— N
2	Parenthood of individuals with more severe ID	4.0714*
		P———— N
3	Non-reproductive sexual behavior of individuals with more severe ID	3.1000*
		P———— N
4.	Self-control of individuals with more severe ID	3.5000*

P – positive attitude, N – negative attitude, \* – the median values

Table 13. An overview of employees' attitudes to the sexuality.

As shown in Table 13, positive attitudes of the interviewed staff occurred only in the area of non-reproductive sexual behavior. We introduce some examples of the respondents' most positive: Masturbation in privacy is an accepted form of a sexual manifestation in men/women with ID. It is sensible to maintain privacy for men/women with ID, who want to masturbate at home. We encounter a neutral attitude to the questions of self-control.

11.2. The second phase of interpretation: The analysis of the influence of specific factors on employees' attitudes

*A comparison of attitudes in SCHs' employees to sexuality in individuals with SID in regard to training programs.*

According to our fourth hypothesis, employees who completed a training program in sex education would show significantly more positive attitudes to sexuality in individuals with SID in comparison to employees who did not complete training programs in sex education.

Trainingprogram	N(thenumberofsexualmanifestations)	Median
Yes	66	3.5714
No	193	3.4464
Point estimate for ETA1-ETA2 is 0.0714		
95.0 Percent CI for ETA1-ETA2 is (-0.0536; 0.1785) W = 9198.0		
Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.2398		

Table 14. The Mann-Whitney U-test coefficients to compare a training program in sex education.

The calculated p-value seen in Table 14 is not significant; therefore we suggest that there was not a significant difference in attitudes between employees who have completed a training program in sex education, and those who have not.

According to our hypothesis, employees who completed a training program in sex education would show significantly more positive attitudes to sexuality in individuals with SID in comparison to employees who did not complete a training program in sex education was not confirmed. The presented conclusion is inconsistent with the research findings presented by Moatti, Manesse and colleagues [25] who believed that the more restrictive attitudes are expressed by less erudite people. We may suppose, that the attitudes of the employees, who have completed a training program, could have been influenced by a level and range of a program itself and therefore their cognitive part of attitudes was not positively influenced. This could also be a result of the respondents' negative experiences with sexuality in individuals with SID, resulting from everyday direct activities with them. Hence we find the results to be a strong argument for improving the level of training programs of employees in sex education in individuals with SID.

*The comparison of attitudes in employees to sexuality in individuals with SID in terms of gender of employees*

In the fifth hypothesis, we assumed that attitudes of male employees would be significantly more positive to sexuality in both male and female individuals with SID in comparison to attitudes of female employees. We found that gender does not have a statistically significant influence on attitudes of employees. There are several studies that suggest that gender itself has the most significant influence on liberalism or restriction of sexual attitudes. As we mentioned before in our research study, almost all authors agree, that attitudes of men are in this area more liberal than attitudes of women. According to Weiss and Zvěřina [25], however, many authors discover that attitudes of men and women to sexual questions have over the last decades come closer. Nowadays, men and women become more alike not only in work life, but as Walker-Hirsch [24] writes, even in sexual expression and in attitudes to sexuality – and our results support it. It could be caused by the general social climate, too, which becomes more liberal (influence of mass media, etc.) and allows women to freely express their opinions and adopt a point of view to them.

*A comparison of attitudes in SCHs’ employees to sexuality in individuals without a disability versus individuals with SID*

The attitudes to sexuality in individuals with ID are certainly linked to our attitudes to human sexuality in general. Hence, in the sixth hypothesis, we assumed that the more positive attitudes would employees show to sexuality in individuals without a disability, the more positive their attitudes to sexuality in individuals with SID would be. To test this hypothesis we used a correlation analysis. At the beginning of the correlation analysis we picture the researched data graphically using a two-dimensional point graph, where each point represents one pair of measurements.

It is possible to estimate positive correlation between attitudes to sexuality in individuals without a disability and individuals with SID. We further verified this assumption using the Pearson correlation coefficient ( $r$ )<sup>4</sup> ( $r = 0.6085$ ; Table 15). Our data suggest that those attitudes to sexuality in individuals with no SID significantly correlate with sexuality in individuals with SID.

N=259	Correlation–significance on the level $\alpha < 0.0500$						N
	AM	SD	$r(X,Y)$	$r^2$	$t$	$p$	
An attitude to sexuality in individuals without a disability	2.7473	0.6229	-	-	-	-	-
An attitude to sexuality in individuals with a more severe ID	3.5240	0.4406	0.6086	0.3703	0.0000	0.0000	259

AM – the arithmetic mean, SD – standard deviation,  $r$  – the Pearson correlation coefficient,  $XY$  – the observed variables,  $t$ ,  $p$  – coefficients and values calculated by the test,  $N$  – number of respondents

**Table 15.** A table of auxiliary calculations of the Pearson correlation coefficient of an attitudes correlation to sexuality in individuals without a disability and individuals with more severe ID.

On the basis of the presented data in Table 15 we suggest that the sixth hypothesis, in which we assumed that the more positive attitudes in employees to sexuality in the general public, the more positive their attitudes to sexuality in individuals with SID would be, has been confirmed. Thus, the assumption has been confirmed that the way that we perceive sexuality in individuals with SID is to a great extent influenced by our personal experience or an attitude to own sexuality. Furthermore, an opinion of SCHs’ employees on sexuality in these individuals is influenced by an attitude to human sexuality in general. The assumption of sex education in these individuals is a possibility to obtain personal positive opinions, attitudes, and experiences to human sexuality. In the seventh hypothesis we assumed, that employees would show significantly more positive attitudes to non-reproductive sexual behavior in comparison to parenthood of individuals with SID.

Sexuality	N(the number of sexual manifestations)	Median
Non-reproductive sexual behavior	259	3.1000
Parenthood	259	4.0714

Point estimate for ETA1-ETA2 is -0.9571

95.0 Percent CI for ETA1-ETA2 is (-1.0571;-0.8572)W = 43793.5

Test of ETA1 = ETA2 vs. ETA1 not = ETA2 is significant at 0.0000

The test is significant at 0.0000 (p-value) (adjusted for ties)

**Table 16.** The Mann-Whitney U-test coefficients to compare attitudes to non-reproductive sexual behavior and parenthood.

Using The Mann-Whitney U-test, the p value was less than 0.05 indicating that there was a statistically significant difference between the two groups (Table 16). Based on our data, we can suggest that employees had a significantly more positive attitude to non-reproductive sexual behavior than to parenthood in individuals with SID.

On the basis of the above results, we form a thesis that the seventh hypothesis, in which we predicted that employees would show significantly more positive attitudes to non-reproductive sexual behavior in comparison to parenthood in individuals with SID, has been confirmed. According to this hypothesis, employees (and a society in general) incline more to sexual activities in individuals with SID, which do not pose a pregnancy risk. Moreover, prejudices persist in a society as well as in providers of social care resulting from lack of information, and that could, as a result, lead to the denial of basic rights of individuals with SID – the right to have a child. It is a very sensitive issue – on one hand the right to have a child cannot be violated because it is an individual with SID, on the other hand there is a risk of immense emotional value in relation to a future child and future parents.

Finally, it should be noted that attitudes are the key factors, which explain human social behavior. We believe that the results of our research on this issue would create an opportunity to study the quality of educational impact of employees on individuals with SID in terms of their sexuality.

### 11.3. The third procedure results: An analysis of sexuality in individuals with SID and sex education implementation in SCHs

In Slovakia, sexuality in individuals with ID is only marginally studied. Yet, sexual partnerships are fundamental elements of a social life and have important social consequences [9]. To what extent are conditions for freedom of sexual expression in individuals with SID and the quality of sex education implementation in SCHs fulfilled, is beyond the scope of this study. Our research study is the first of its kind in Slovakia.

#### *The quality indicators of social services provided by an institution*

The first objective in this phase of research was to identify quality indicators of social services provided by institutions in general. We were particularly interested in the size of the institution, the number of individuals sharing each room, and the number of staff. These indicators would certainly influence sex education in these institutions. The largest institution participating in this research provides its services to 240 individuals with multiple disabilities in people 18 years and older. The smallest institution participated in our research provides its services to 18 individuals with ID from birth to 18 years old. Of SCHs that participated in research, 82.1% (23) of institutions provide their services to more than 30 individuals. We used the limit of 30 individuals, as this limit in particular is considered by European experts to be the key in terms of quality of service assessment. According to these experts, in an institution with over 30 residents, there is higher probability, that the basic human rights will be violated [7]. An important quality indicator of provided residential services is also the number of individuals sharing a room. We investigated the minimum and maximum number of individuals sharing a room. Around 25% (7) of the questioned institutions reported a minimum of one resident per room. On the other hand, rather serious information was that one institution stated a minimum of 8 residents living in one room. Surprisingly, in one case the maximum number was 11 individuals. Out of 28 SCHs, only one institution was non-coeducational. We compared sexual manifestations of 298 individuals placed in coeducational institutions and 68 individuals placed in non-coeducational institutions.

On the basis of our research, it is possible to suggest that there are relatively big differences in the institutions in terms of quality of services provided. On one hand, the Slovak Republic used modern facilities offering their services to individuals who have their own room and on the other hand, there are big, sometimes even non-coeducational institutions where individuals have to share with ten other individuals. We believe that an institution should open up as much as possible to an ambient society, to use social teaching of individuals directly "in terrain" to the limit. Being in touch with the general population motivates individuals to constantly develop and learn. Thanks to a very important feedback, they learn faster, and a positive feedback motives them much more than learning in a non-stimulating rigid environment, which does not allow an individual to put everything learnt into practice.

#### *Partner's sexual activities and their conditions in SCHs*

Circumstances of partners and sex life are certainly one of the basic indicators of human sexual behavior. These manifestations could have an influence on sexual behavior of an individual with SID. Therefore, we asked questions concerning sexual rights, the sexuality, conditions of



forming partnerships, and satisfying of individuals' sexual desire in SCHs. We also included questions in the questionnaire that detected attitudes of respondents on application of sexual rights of individuals with SID. We found that although most employees were able to accept right to sex and partnership in individuals with SID, they express negative attitudes to the right of these people to marriage. The respondents were even stronger in their disapproval of the right to parenthood in individuals with SID. It confirms the findings acquired from the attitudes questionnaire, where the most negative attitudes had the respondents in particular to the questions of parenthood in individuals with SID. Here we provide an example of a client's interest in being in a marriage according to a statement of a social care worker:

**A 46-year-old female with moderate ID.***The client was telling me about her son's father. She likes talking about men. She asks various questions. She often asks about her music therapy teacher. Today she was telling me that somebody will marry her. She does not like to hear that a man, whom she had a son with, has got married and has children. She longs for a family life with her dream husband. She likes to put some make-up on in order to be attractive for her music therapy teacher.*

In the next questionnaire item, we aimed to study whether employees encountered sexual manifestations in individuals with SID. We found that almost half (52.1%) of employees have encountered such manifestations. Similarly, almost one third (28.9%) of the respondents expressed negative attitudes toward this. The respondents were also supposed to specify the type of sexual behavior of individuals. The most commonly answer suggests a preference for masturbation over other sexual manifestations (32%). Other manifestations included: kissing (17.8%), cuddling (13.1%), touching intimate parts of another client (9.7%), stroking, caressing (7.7%) and an intercourse (5%). We consider these results to be another evidence of the presence of sexuality in individuals with SID and an interest in activities of sexual character (masturbation, coitus). We also consider it as a strong argument for sex education implementation in these individuals. Occurrence of masturbation is demonstrated here through statements of an SCH educator:

**A 42-year-old female, with moderate ID.***The client puts her hands between her legs and touches her sex organs at least once a day, either in the evening in her bed or in the room on the floor. She sways and lets out different sounds. She's very irritated. She sometimes goes to an empty room and repeats her behavior, she often screams furiously.*

Our results support the thesis of Tóthová [23] about insufficient respect of sexual needs and sexual rights of SCHs' individuals. We have also come to the same conclusion, that most institutions do not create conditions for implementation of sex and partners life of individuals with SID. We evaluate it negatively in terms of violation of sexual rights of such individuals to the freedom to pursue their own sexuality. Only less than one-third of the employees stated, that individuals did have such an opportunity, but only on the premises of SCHs. Unfortunately, only 5% of the questioned institutions allowed to create sexual relationships and partnerships even outside of institution. We give an example of a client's interest in being in a partnership with a female client:

**A 36-year-old male with SID.***The client often holds a hand of an opposite-sex client. He's already told me couple of times, that he'd want to be in a room just with her. They're walking together in the corridor and they're happy. The whole morning they've been seating together, holding their hands*



and sometimes they're talking as well. He was passive on that day, she was active and was looking for him. When she managed to find him, he was lying in his bed. She was sitting at his side, smiling and was content. Then she took his hand and they went for a walk again. After lunch she took some meat of her plate and went to give it to him. In the evening they shared food again. I've registered deep manifestations of mutual affection. Then they started to kiss, he was stroking her. She attracts his attention, e.g. I've lost weight, I've washed.

Those who answered that their institutions created conditions for partners and sex life of individuals with SID were then asked to specify its concrete form. We found that in SCHs, a couple is mainly allowed to meet up during common activities at the institution. The results show that in SCHs conditions are not created to allow individuals with SID to pursue their own sexuality. Also currently, such form of cohabitation collides perhaps with prejudice and entrenched ideas of asexuality of these people.

Another question investigated the opinions of employees on enabling implementation of sexual life in individuals with SID. Here, implementation of sexual life refers to enabling sexual life according to particular needs of these individuals. In this part of the questionnaire, we found some contradictions in the responses of the employees in relation to previous statements about not accepting the right to sexual life in individuals with SID and/or not creating conditions for its implementation in particular institutions. We found that most respondents inclined to implementation of sexual life according to a particular social need or desire of individuals (74.1%). According to the statements by the employees, in case that an institution allowed their individuals to practice sex life, it was mainly on the level of kissing (65.6%) and cuddling (64.5%). Another accepted form is masturbation (47.1%), which – as we mentioned before, was the most frequent form of individuals' sexual expression. Next we studied manifestations of the second level, in particular touching intimate parts of another individuals and intercourse. In cases when the employees (N = 22) did not allow implementation of sex life of their individuals, it occurred due to several reasons: there were not conditions for it (limited capacity, no premises, etc.) (5%), majority was children (1.9%), individuals do not have a need (1.5%), and there was not a representation of individuals in terms of sex (0.4%).

*The attitude of employees to sexuality in individuals with SID*

Whilst questioning the employees about their reactions to individuals' sexual behavior, we sub grouped responses in the questionnaire (and also in the observation coding sheet), in accordance to the levels that we had formed. Their overview is introduced in Table 17.

STAFFREACTIONS			
ELIMINATIONOF SEXUALITY	TOLERATIONOF SEXUALITY	ACCEPTANCEOF SEXUALITY	CULTIVATIONOF SEXUALITY
Punishment, Rebuke Other activities	The first level manifestations Masturbation Intercourse	The first level manifestations Masturbation Intercourse	Dialogue, Explanation

**Table 17.** Categorization of reactions of employees to individuals' manifestations of sexual behavior<sup>5</sup>

Response	Number	Expressed in %
Acceptance of sexuality	71	27.4
Cultivation of sexuality	64	24.7
Tolerance of sexuality	28	9.8
Elimination of sexuality (Verbal rebuke, warning)	24	9.3
Elimination of sexuality (Diverting attention – ergo therapy, game, medications)	16	6.2
I don't know	16	6.2

**Table 18.** Reactions of employees to individuals' manifestations of sexual behavior.

Whilst questioning the employees about what reaction to manifestations of sexual behavior of individuals with SID they considered right, we came to the following conclusions supported by statements of the employees (Table 18):

Most respondents were in favor of acceptance of sexuality in these individuals. On the second place the employees expressed tendencies towards cultivation in their opinions, which is a positive finding, even though percentage of the answers (less than a third) in terms of a necessity to educate individuals with SID in the area of sexuality, is not very encouraging. „We have discussed with a client about an intercourse, about an influence on her as well as the other individuals. We have also spoken to a partner and explained a pregnancy issue, an influence on other individuals, etc.“ The next in line were the reactions on the level of tolerance (ignoring – neglecting, let it take its course, no reaction), and a relatively high percentage were for elimination of sexuality – on the level of punishments (verbal), as well as elimination of sexuality by diverting attention of individuals through other activities. „Ignoring, as reproving in front of the group isn't effective, the client doesn't understand instructions when she's told not to do it, that it is inappropriate in public. When masturbation and stripping take longer, I dress the client and try to draw her attention away from masturbation through various educational activities – I give her a book, puzzle.“

We perceive the presented findings negatively. For this reason, we also used the observation-coding sheet to study reactions of the staff. Next, we will compare the results obtained from the questionnaire with employees' reactions to sexual behavior of individuals in SCHs.

As shown in Table 19, most employees react negatively to manifestations of sexuality of individuals with SID especially through punishment or rebuke. Second in line are reactions on the level of tolerance of sexuality manifestations of the first level, and masturbation. Toleration of an intercourse was registered only in one respondent's statement. It is likewise with reactions on the level of acceptance, where employees are most often able to accept the first level manifestations of sexual behavior, less often they accept masturbation, not in one case do they tolerate an intercourse. Reactions on the level of cultivation of sexuality were registered only in one case. While comparing results acquired from the observation coding

sheets with results presented in the questionnaire, we suggest that employees tend to evaluate their reactions more positively in general evaluation, a more negative attitude we found while dealing with a particular registered sexual expression of individuals directly in contact with them in an institution.

Code	1		2		3		Total		Nospecification	
	N	%	N	%	N	%	N	%	N	%
a	89	19.4	11	2.4	-	0.0	100	21.8	0	0.0
b	43	9.4	41	8.9	1	0.2	85	18.5	1	0.2
c	54	11.8	26	5.7	0	0.0	80	17.4	0	0.0
d	1	0.2	0	0.0	0	0.0	1	0.2	55	12.0

a1 – elimination of sexuality through punishment, a2 – elimination of sexuality through other activity, b1 – tolerance of the first level manifestations, b2 – tolerance of masturbation, b3 – tolerance of coitus, c1 – acceptance of the first level manifestations, c2 – acceptance of masturbation, c3 – acceptance of coitus, d – cultivation of sexuality

**Table 19.** Reactions of employees to registered sexual expression of individuals.

*Opinions of employees on sexuality in individuals with SID*

As it is necessary to address the problem of sexuality of individuals with SID, and as we are aware of the presence of inappropriate behavior, which could be a consequence of cumulated energy, we were interested which manifestations of individuals' behavior in SCHs have employees come across with. The most common manifestations of cumulated sexual energy according to the respondents are: quick mood swings, aggression, neurotic, and other inappropriate social behavior (head banging against the wall, hands biting). Others are stereotypical movements, neurotic drooling or sexual symbolic substitutions. There were also statements claiming that such behavior is not manifested, and other answers where the respondents stated – cannot identify (4.2%), insomnia (1.2%), the others with an occurrence of 0.8% – crying, questioning, enhanced nervousness and seeking quarrels, rubbing intimate parts against a bed or sofa, harassing other individuals, and agitation (0.4%). Our questionnaires also contained questions concerning opinions of respondents on sexuality in individuals with SID in general. Our further questions concerned opinions of employees on sexual motivation (sexual impulse) and sexual maturity in individuals with SID, with whom they are in direct contact. As our results show, most questioned regard sexual motivation in individuals with SID the same as in individuals without a disability. However, in the answers, we often found statements that sexual impulse in these individuals is reduced (27.4%) or increased (16.6%), and 25.9% could not answer this issue. We also found that most employees did not have enough information in this area. In relation to sexual maturity in individuals with SID, most respondents believe that sexual maturity occurs in people with SID later (36.3%), a relatively high percentage could not answer this question (29.7%), and some believe that it occurs earlier (17.4%). These results show, that awareness of employees about issues of sexuality in individuals with SID is at a low.

### *Masturbation activities and an intercourse in individuals with SID*

A part of research on sexual behavior mostly relates to the frequency of masturbation. In the current study, we provide results studying masturbation activities – as detected by directly asking employees as well as data obtained through anonymous questionnaires.

Particularly positive are responses of the staff about masturbation as a normal phenomenon (57.1%) or even useful (releasing sexual tension) (52.9%). It is likely to be perceived as a sign of a positive trend and recognition of reality, that in relation to unsatisfactory conditions for partners' sexual life in SCHs (see above), individuals really have no other choice. Actual behavior or a form of sexual auto stimulation (masturbation) was specified by staff as follows: client themselves touch vagina or penis, rub a sex organ against an object, use some sex aids. In the option "other" they stated I don't know, he/she masturbates in privacy, I'm not interested, I don't have an experience.

It should be noted that masturbation is a manifestation of healthy sexual expression and it should be supported in case it is manifested in a way that does not bother the others or it is not performed in a self-harming way. In regard to a positive perception of masturbation, we were interested on employees' reaction to such manifestations in individuals with SID. We provide an example of a statement of a SCH employee:

**A 32-year-old male with moderate ID.***The client was touching his private parts and smiling while doing it. He pulled his pants down and masturbated on a chair in his room. Then he laid down on the floor flat on his stomach and rubbed his genitals against the floor, and he was laughing while breathing loudly.*

Reactions of employees to masturbation are, similar to above analyzed reactions to sexual behavior in general, mostly on the level of tolerance (34.3%) (i.e. they do not solve, take no notice or let presented behavior take its course), and acceptance (33.6%) (they perceive masturbation as a natural manifestation and need that releases tension, it is allowed to individuals in privacy). We rarely found cultivation of sexuality (thus advising individuals, engaging in conversations, sex education, regulation of masturbation in public in connection with acceptance of masturbation) (around 18.1%). We evaluate negatively reactions on the level of elimination of masturbation, either through punishment or through diverting their attention to other activities – a prayer, work or relaxation (4.6%).

One of the means of a restrictive "solution" of sexuality in individuals with SID is the use of drugs that can reduce the ability to masturbate and experience libido (e.g. antipsychotics). While unethical, this method is still applied in many institutions (21.6%). Based on our experience, obtained from interviews with both professional caregivers and psychiatrists, we concluded that the situation in SCHs is even worse. We have also come to the conclusion, that most respondents similarly dismissed the idea of on allowing an intercourse (49%). Statements of professional caregivers and individuals themselves support an interest in the intercourse in individuals with SID:

**A 37-year-old female with moderate ID.***The client needs surveillance; she is moody, sometimes even impulsively aggressive – once she hit another client in a conflict. Her behavior is infantile,*

*problematic for insufficient regulation, a possibility of short-circuit behavior. Everyday she wants to see a penis and without educators' surveillance she would be able to carry out an intercourse. Kissing, touching intimate parts of the opposite sex and manifestations of sexual impulse in verbal communication and spontaneous stripping in front of other individuals, occur on a daily basis.*

**A 40-year-old male with SID.** *The client has a girlfriend and they cuddle and kiss. Another female client takes care of him, she brings him lunch, pours coffee, etc. He spends almost all his time with her, they listen to music, go for a walk holding their hands. In the past, they had an intercourse, too.*

To find more information on partnerships of individuals with SID in SCHs, we further questioned if they had a stable partnership. According to the staff in most institutions, they do not form a stable partnership. The reasons for the lack of stable partnership included, that individuals swap partners (they don't care for a stable partner) (8.9%), an age category doesn't correspond (under or over age) (6.2%), an institution doesn't create conditions (5%), they form only friendships (5%), a more SID (4.6%), non-coeducation (2.7%), and the lack of support by the institution (0.8%).

#### *Homosexual orientation and activities in individuals with SID*

There has also been a lot of research done recently focusing on the prevalence of homosexuality and homosexual experiences in the general public [25]. A few research studies have implied that the prevalence of homosexuality in individuals with a disability is similar to the general public. For example, several British studies have confirmed, that individuals with ID (mostly men) have in fact the same sexual contact with the same sex as the others, but it is hard for people in their environment to accept it [22]. Therefore, we were interested in a situation among individuals with SID and opinions of employees on these complex issues. Whilst seeking opinions of employees on a sexual interest of individuals in a person of the same sex, the findings of other authors are being documented and suggest, that even in individuals with SID an interest in a same-sex person occurs. In many responses of employees, such interest comes both from men and women (38.2%), some think it comes more from men (26.3%), and only 7.3% indicate that it comes only from women. These results are perhaps a reflection of the specific surrounding in which individuals are situated, as well as possibilities to meet up with the opposite sex (so called pseudo homosexual relations). Despite what has been presented, the results imply that it is sensible to expect that homosexual orientation or homosexual activities exist among individuals with SID. Under such circumstances in SCHs, it might be very difficult for a young person with SID to find support for his/her homosexual identity.

In relation to the results on the prevalence of interest in homosexuality among individuals with SID, it is not surprising to find that most respondents wrongly perceived homosexuality as an illness (45.2%). Next (with relatively smaller representation) is homosexuality perceived by respondents as a variation (23.6%). The other responses sound pejorative and are not consistent with up-to-date knowledge and current views of homosexuality by the society.

#### *Reproductive – contraceptive behavior in individuals with SID in SCHs*

According to all available information about sexual behavior in humans, over the last decades, a dramatic increase in a number of individuals using some forms of contraceptives at an



intercourse has occurred in most countries around the world. This is related to a variety of social and cultural factors that have changed the attitudes of whole society to reproductive behavior. Planned and desired parenthood is applied more and more often. In the current study, we analyzed the most common birth control methods in women with SID and evaluated opinions of SCHs' employees in this area. Specifically, the respondents gave the following answers: none (we don't deal with it) (12%), I don't know (5.4%), they don't have an intercourse so nothing can happen (3.1%), separated bedrooms (2.7%), constant surveillance (2.7%), we prevent an intercourse with the opposite sex (2.3%). The presented methods of preventing unplanned pregnancies are perceived negatively, as it is a violation of the rights to the freedom of sexual manifestation of individuals with SID.

The optional use of contraceptives (N = 45) included: condom (6.2%), an intrauterine device (4.2%), contraceptive pills (2.7%), and sterilization (2.3%). These results reflect low prevalence of contraceptives use and an occurrence of sterilization that is currently an obsolete and with etiquette irreconcilable form of birth control. They also point to negative attitudes of employees to the questions of parenthood of individuals with SID. It confirms the results acquired within the attitudes questionnaire and also within the opinions of employees on the rights of these individuals to have children.

One of the consequences of not using contraception is undoubtedly an unplanned pregnancy. Fortunately, most employees have not encountered an unplanned pregnancy in SCHs. The employees who have encountered this problem (N = 22), suggested: abortion (68.2%) or the client's transfer to another institution (4.5%).

#### *Opinions of employees on sexual abuse of individuals with SID*

The problem of sexual abuse has gained increased public attention all over the world in the past few decades. In our research, we have focused on detecting prevalence of sexual abuse of individuals with SID in SCHs. We found that that most employees have not encountered problems in individuals in SCHs (66.8%). However, 23.5% alert to presence of sexual abuse among individuals with SID. Employees, who have encountered sexual abuse, further identified the sexual abuse offender. In most cases the offender was another client on a higher intellectual level (22%), a client on a lower intellectual level (6.2%), other relatives (4.6%), and strangers (1.2%). We also registered a SCH employee (0.8%) and even a parent of a client (0.4%) in the responses.

According to opinions of employees, the most commonly identified forms of sexual abuse were inappropriate touching of a client's body only, a client was forced to perform oral sex, an offender demanded that a client stimulate him with a hand, an offender demanded coitus in the anus, an offender demanded coitus in the vagina, others were registered with an occurrence of less than 5%.

In accordance with criminal law, which rigorously determines procedures detecting sexual abuse, we were interested how employees react to such situations. Most respondents deal with a report of sexual abuse through an interview with a client (23.6%). The respondents then indicate a possibility of reporting sexual abuse of a client to the management of an institution (12.4%). In an option other the questioned gave these statements: most individuals with SID



don't communicate, they cannot express their emotions and impressions, they moved the client to another part of the building of the SCH, a report to a paramedic, the client didn't report it, stronger surveillance and preventing the situation from happening again by communication with the client and a psychiatrist.

Finally, our results show high latent criminality in the area of sexual abuse. Our results indicate that only a small number of incidences (whether it was sexual abuse or sexual harassment) were reported to the police. In most cases sexual abuse occurred in milder forms (inappropriate touching, masturbation), only a smaller number involved penetrative behavior of an offender (a vaginal or anal intercourse). Also from this point of view, occurrence of sexual abuse rising latent criminality and severity of such kind of crime in population of individuals with SID, too, is particularly alarming.

#### *An analysis of professional training of SCHs' employees in sexuality*

The other dimension, which we investigated in terms of analysis of the quality-of-life in individuals with SID in SCHs, was the degree of awareness of employees and individuals on questions of sexuality and sex education. At first, we present evaluation of awareness of individuals with SID by employees. The respondents were asked to evaluate it on a five-point scale in a questionnaire.

In the responses of the employees, we found that a negative opinion dominates on sex education and enlightenment of individuals with SID. Despite minimal awareness of individuals in the area of sex education, the majority did not find it necessary to increase awareness in this group of individuals (63.3%). The same negative conclusion brings the data which reflect, that most respondents have not completed any professional training in the area of sexuality or sex education of individuals with ID.

The respondents who completed professional training (N = 66) were asked to evaluate its benefit on a five-point scale. Responses to this question showed the quality of employees' preparedness to solve problems of sexuality in individuals with SID in SCHs. The participants considered completed training as beneficial.

The respondents were given an opportunity to evaluate their own awareness in the questions of a partnership and sexuality of individuals with SID in the following questionnaire item (again, evaluation was done using a five-point scale). We found out, that most respondents stated that it was average.

The presented conclusions of employees' education in the area sex education suggest a necessity to improve the situation by implementing continuing education ensuring the quality of training to solve the complex problem of individuals with SID. Sexual socialization of individuals with SID is in fact accomplished through symbols and patterns, submissions, expectations, rules and deputations, particularly from SCHs' employees.

#### *An analysis of the situation in the area of sex education and its implementation in SCHs*

Sex education has become a public issue around the world including the Slovak republic. Political conservatives and religious fundamentalists have often voiced their displeasure

against open sex education. According to Murphy [15], the main arguments of opponents of sex education are statements that sex education is inefficient and is responsible for greater sexual engagement in adolescents or early sexual initiation. Yet, according to the majority of research, the opposite is correct.

We found that the ratio of number of the respondents' answers commenting on advantages versus disadvantages of sex education was around 2 (161 advantages: 84 disadvantages). The employees found advantages in better awareness of individuals, improvement of sexual behavior, prevention, improvement of communication with a partner, sexual self-acceptance, releasing sexual tension, etc. Disadvantages include stress, creating sexual tension, early interest in sexual intercourse, etc. The opinions of employees show differences in responses, which prove a low degree of preparedness to solve sexuality issues in individuals with SID in SCHs. Finally, according to the World Health Organization sex education leads young people in sexual activities to adopt safer sexual practices, postpone sexual initiation and decrease overall sexual activity. At the same time it declares, that the study has showed neither increase nor decrease of sexual activity in young people under the influence of sex education [25].

Other various international studies have monitored the main information population sources about sexual issues. The responses showed, that the main sources of sex education in individuals with SID were employees (57.9%) followed by the family, and educational institutions, e.g. SCH. Professional caregivers generally prefer sex education implementation at school to family.

#### *The current status in sex education in SCHs*

Here we studied the particular situation in SCHs in the implementation of sex education. Therefore, in the next questionnaire item, employees were asked whether there was an appointed person or a supervisor in the institution who was in charge of dealing with sexuality and partnerships issues. Unfortunately, in most SCHs there were no such persons. This finding indicates low (if any) degree of sex education in SCHs. Only 7.7% of the employees stated, that the institution has an appointed person (e.g. the director, appointed employee, head of nursing or social division, doctor, head nurse or psychologist).

Another finding revealed that with the exception of two institutions, there were no rules or guidelines used in SCHs, which would instruct on how to deal with basic issues occurring in an institution in the area of sexual and partnerships in individuals with SID. According to Kozáková [7], it is essential for SCHs to have exact guidelines on how to manage basic issues occurring in this area. As we mentioned before, such a practice is standard in many countries and essential for successful sex education implementation.

According to several published studies, sex education is implemented only in a small number of public schools [25]. We were interested in situations in SCHs and found most institutions do not perform sex education.

## 12. Conclusions

Clearly, evaluation of sexuality and partnerships in people with SID in SCHs will significantly help to improve quality of life in these individuals. Based on our research, we may state that, in the area of sexuality and sex education in individuals with SID, there are still many gaps. We believe that through understanding opinions and attitudes of employees, it would be possible to get a better picture about the problem. Therefore, we hope that the present study will serve as a tool for further discussions in the area of sexuality and sex education in individuals with SID in SCHs. We consider our conclusions as the beginning of long-term research of sexual behaviors that would enable us to precisely study the main characteristics of sexual behavior in individuals with SID, changing opinions and attitudes of employees and other specialists, who are in touch with these individuals, and last but not least, to study how the changes reflect in the quality of provided sex education and its reflection in quality of life in individuals with SID.

Finally, it should be added that manifestations of sexuality in individuals with SID would be more complicated if a person with ID lives within a system with no support for sexual knowledge and relations, and if he/she has not acquired correct and accurate information about their sexuality and sexual presentations. It is important, that employees and all others who participate in education of individuals with SID understand the specifications of the sexuality in people with SID. Only then, we can open the way for effective sex education in these individuals.

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## Appendix

1. We regard individuals with more SID as individuals with moderate and SID in this paper.
2. Coding of the observed sexual manifestations:

The sexual behavior in individuals-to- employees: V1 – cuddling of same-sex employees, V2 – cuddling of opposite-sex employees, V3 – stroking of a same-sex employee, V4 – stroking of an opposite-sex employee, V7 – desire to look attractive to a same-sex employee, V8 – desire to look attractive to an opposite-sex employee, V9 – blushing in the presence of a same-sex employee, V10 – blushing in the presence of an opposite-sex employee, V11 – manifestations of joy, happiness in the presence of a same-sex employee, V12 – manifestations of joy, happiness in the presence of an opposite-sex employee, V13 – kissing of a same-sex employee, V15

– sexual assaults (attacks), V17 – masturbating in the presence of an employee, V19 – V22 other atypical sexuality manifestations

3. The p-value is the level calculated from the Mann-Whitney U-test and represents the probability of error caused by accepting the hypothesis of difference between tested variables. If  $p > \alpha$ , we accept the null hypothesis  $H_0$ ; if  $p < \alpha$ , we reject the null hypothesis and accept the alternative hypothesis  $H_1$ .
4. Pearson correlation coefficient  $r$  (1) falls between  $[-1, 1]$ , (2) if  $|r| = 1$ , then all points are lying on a straight line, (3) if  $r = 0$ , we call  $X$  and  $Y$  uncorrelated variables, (4) if  $r < 0$ , then  $Y$  decreases and it indicates a negative association, (5) if  $r > 0$ , then  $Y$  increases and it indicates a positive association.
5. *Reactions on the level of elimination* of sexuality and sex education of individuals with SID – we have as reactions, which hold an opinion that if a sexual need and desire occur in individuals, it is necessary to keep them occupied with entertainment or work, so they do not have time to think about these needs, or its fulfilling is prevented by a punishment (verbal).

*Reactions on the level of tolerance* – we have as reactions, which tolerate their sexual needs or desires and their satisfying through masturbation. Employees are aware of sexual needs, they tolerate them, but they do not provide any support in this area (mostly on the level of ignorance).

*Reactions on the level of acceptance* – employees are aware that individuals have the same sexual needs as the others; they are equally sexually active, "sexually normal".

*Reactions on the level of cultivation* – we have perceived as the highest level, when employees are aware that individuals not only have the same sexual needs as the others, but they also need open sex education, support and counseling in this area and their task is to provide the support.

## Author details

Stanislava Listiak Mandzakova

Department of Special Pedagogy, Faculty of Education, University of Presov, Presov, Slovak Republic

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