

ORIGINAL ARTICLE

‘Living with tics’: self-experience of adolescents with Tourette syndrome during peer interaction

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Aims and objectives. To describe the essence of the self-experience of adolescents with Tourette syndrome in the context of peer interaction.

Background. Tourette syndrome has an adverse impact on adolescents’ physical, psychological and interpersonal interactions. Peers provide adolescents with social interactions that are crucial to the formation of self-identity. Studies exploring the self-experience of adolescents with Tourette syndrome in the context of peer relationships are lacking.

Design. A qualitative, phenomenological research design was used.

Methods. A total of 12 adolescents with Tourette syndrome from the Taiwan Tourette Family Association were selected by purposive sampling. Data were collected using open-ended questions in one-on-one in-depth interviews that lasted 60–90 minutes. Giorgi’s phenomenological methods were applied to analyse the data obtained. Four criteria were employed to evaluate methodological rigour.

Results. The findings showed that the self-experience of adolescents with Tourette syndrome during peer interaction reflected their lived experiences of peer identity, social identity and self-identity. Themes included: (1) the inexplicable onset of tics during encounters with other people, (2) sources inspiring the courage for self-acceptance and (3) strategies of self-protection in response to changes in situation.

Conclusions. The self-experience of peer interaction among adolescents with Tourette syndrome is a dynamic and interactive process characterised by the symbolic meanings conferred on the tics by the interacting adolescents. The adolescents with Tourette syndrome obtain self-identity through peer responses and recognition, while the tolerance, respect and support of parents and teachers spark the adolescents’ courage for self-acceptance.

Relevance to clinical practice. Healthcare providers who assist adolescents with Tourette syndrome must understand that tics occur in the context of peer interaction and how this affects the adolescents’ relationships with their peers in various life situations. Furthermore, healthcare providers should provide support, respect and offer coping strategies regarding peer interaction based on an understanding of the social dynamics of such peer interactions.

What does this paper contribute to the wider global clinical community?

- Acknowledgement of the symbolic meanings conferred on their tics by the interacting adolescents.
- Consideration of the need among adolescents with TS for interaction with healthy peers to obtain healthy self-identity.
- Healthcare providers should support and offer coping strategies for TS adolescents.

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Introduction

Tourette syndrome (TS) is a neurodevelopmental disorder that is characterised by multiple motor and vocal tics (Altman *et al.* 2009). A systematic literature review has shown that the incidence of TS in children and adolescents worldwide is approximately 1% (Robertson 2008). Tics typically have an onset during middle childhood and reach their worst severity between the ages of 10 and 12 years. Tic severity declines during adolescence (Leckman *et al.* 2006, Altman *et al.* 2009, Byler *et al.* 2015). In addition to tics, the emotional and behavioural comorbid conditions of TS affect the academic performance and interpersonal interactions of these adolescents (Cohen *et al.* 2013). People use symbols to express meaning, values and thoughts during interaction processes. Individuals interpret symbolic meanings differently when there are changes in situations and people (Mead 1934). Peers are significant others in the development of adolescents (Lerner & Steinberg 2009). Nonetheless, existing studies have seldom enrolled adolescents with TS as participants and explored their self-experience during peer interactions.

Background

People with tics may temporarily conceal them; however, eventually, the tics attract the attention of other people and this leads to interpersonal interaction problems (Rindner 2007, Wadman *et al.* 2013). A retrospective study has shown that more than 80% of adults report persisting tics as mild or non-existent, but more than 40% reported experiencing other comorbidities (Byler *et al.* 2015). Such comorbid conditions, including obsessive-compulsive disorder and other anxiety and depressive disorders, are more common during the adolescence of individuals with TS than in the general population (Bloch & Leckman 2009). Some studies have indicated that the self-perceived quality of life of individuals with TS is lower during adolescence than at the peak period of TS symptoms (Storch *et al.* 2007, Cutler *et al.* 2009).

During adolescence, individuals are engrossed in exploring whether or not their unique advantages and disadvantages are consistent with what other people think of them (Lerner & Steinberg 2009). During interpersonal interac-

tions, symbolic meanings are interpreted as part of communication. Individuals cannot adopt any action until they understand the action's complicated social context, which allows them to determine what is adequate behaviour in such circumstances. (Mead 1934). Charon (2010) suggested that the self-shaping of individuals is formed through their self-perspectives, significant others and reference groups. However, what information do tics, as symbols, convey during peer interactions? The onset of tics might result in these adolescents experiencing social difficulties that are caused by embarrassment and anxiety. The peers' negative viewpoints of TS will create social stigma. Adolescents with TS may even flinch from such social interactions and try to avoid mocking by peers (Ohm 2006, Walkup *et al.* 2006, Rindner 2007). Relevant studies have indicated that, compared with normal peers, adolescents with TS experience more diversified behavioural and emotional problems. Therefore, they shrink back and are silent in groups and as a result they become unpopular (Stokes *et al.* 1991, Eapen *et al.* 2004, Holtz & Tessman 2007). So, how do healthy peers view adolescents with TS? One study pointed out that more than 60% of peers understand that the abnormal behaviour of adolescents with TS is not controllable, and 56% of them are willing to develop friendships with such adolescents (Brook & Boaz 2006). Two qualitative studies in the UK enrolled adolescents with TS as participants and investigated their quality of life (Cutler *et al.* 2009) and psychosocial experiences (Wadman *et al.* 2013). The results showed that, although adolescents with TS were able to develop supportive friendships with peers, they still encountered problems and difficulties regarding their interpersonal interaction networks. However, these studies did not focus on the peer interactions and their context. Furthermore, these studies also did not probe the meanings conferred on the tics during the adolescents' interactions with healthy peers and the self-experience of their living situation, social relationships and cultural relationships. Peers provide adolescents with social interactions, allow the sharing of interests and ideas, and help the exchange of feelings, all of which are crucial to the formation of self-identity. When adolescents suffer from chronic illness, they feel frustrated and angry with the establishment and maintenance of peer relationships; this affects the development of their self-image (Olsson *et al.* 2003, Suris *et al.* 2004, Lerner &

Steinberg 2009). Individuals gradually internalise individuals' responses to their behaviour after the interaction process and use these to construct their self-image (Blumer 1986, Benzies & Allen 2001). Nonetheless, the relationship between adolescents with TS and peers without TS and its importance to the self-development of adolescents with TS remains largely unexplored. The purpose of this study was to explore the self-experience of adolescents with TS during their interactions with healthy peers.

Methods

Research design

The core of Husserl's phenomenological study is 'back to the things themselves', which aims to understand the meaning of lived experiences, which allows us to grasp the essence of things (Sokolowski 1999, Giorgi 2009). Phenomenology attaches importance to bracketing, sets aside pre-understanding and enables a phenomenon to exhibit itself through horizontal manifestation (Moustakas 1994). This study assisted adolescents in reflecting on their past lived experiences from a bracketing perspective. The study explored how adolescents with TS and their peers conferred symbolic meaning on tics, investigated the status and role of tics in peer interactions and studied their influence on the formation of self-experience.

Sample

This study used purposive sampling. During the analysis of the themes, when no new meanings were discovered, saturation was reached and at that point data collection was terminated. The participants enrolled in this study were from the Taiwan Tourette Family Association (TTFA). The inclusion criteria were being an adolescent age 12–18 years who had been diagnosed with TS by paediatricians according to the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association 2013). Disease severity was not taken into account. The adolescents did not suffer from language/expression barriers. The average age of the participants was 16.6 years. Eight of the 12 participants were boys, which is consistent with the fact the incidence of TS in boys is higher than that in girls (Robertson 2008). In terms of the level of education, most of the participants were senior high school students ($n = 4$). The average age at which the participants had been diagnosed with TS was 8.8 years. The main comorbidity was attention deficit hyperactivity disorder ($n = 9$), which mirrors the results of a study on TS

comorbidities (Hassan & Cavanna 2012). All participants had received Western treatment and about 25% of the participants had also received traditional Chinese medical treatment.

Data collection

Ethical approval was given by the institutional review board of the National Yang-Ming University (IRB:1000010). Informed consent was obtained from the adolescents and their parents before each interview. The researchers strictly adhered to the principles of autonomy, participant privacy and research data confidentiality. A total of 12 adolescents with TS participated in the study. Two adolescents did not want to share personal experiences and refused to be interviewed. All participants were individually interviewed in private and confidential locations. The interview guide was open-ended to obtain in-depth information. After the interviews, the responses were converted into transcripts for data analysis. Several open-ended questions were used to guide the interviews. These were: (1) 'Please talk about your living situation when you were diagnosed with TS'. (2) 'How is your interaction with your friends at school?' and (3) 'What TS symptoms do you currently experience?' Every participant was interviewed two or three times, and each interview lasted 60–90 minutes. As the frequent occurrence of tics could interfere with the interview process, the researcher empathetically respected and complied with the participant if he or she decided to suspend the interview. Participant G indicated that it was normal to experience tics while talking. Other people regarded the tics as a burden. As tics are a part of participant G's body, she did not need to change what she was doing because of the tics. From the voice of the participant, the researcher reflected on the awareness, stream of consciousness, and feelings of the participants. The researcher applied an attitude of bracketing in which the interviewer jointly and retrospectively embraced the past lived experience with the participants.

Rigour

A qualitative study is people-oriented and uses phenomenological methods to explore living experiences. The results of a qualitative study can help nurses better understand patients' experiences and empathetically provide suggestions for care (Nairn 2009). This study used qualitative research methods to explore the self-experience of adolescents with TS during peer interactions. This study used credibility, transferability, dependability and confirmability as

proposed by Lincoln and Guba (1985) to establish trustworthiness. Credibility means carrying out an investigation in a way that enhances believability. Prolonged engagement may also be essential to build up trust and rapport with the informants (Polit *et al.* 2006). The researcher was a nurse practitioner in the paediatric division and has lectured in paediatric nursing at the university level. In addition, the researcher had served as a volunteer at the TTFA for an extended period and interacted well with adolescents with TS. The researcher and the corresponding author jointly participated in the inspection of the data and randomly selected two hard copies to inspect half of the data respectively. This included formulating meaning from significant statements and then formulating themes from those meaningful statements. Using the in-depth description of the data within the research findings, it was possible to understand whether the research process was consistent with the results.

Dependability means the way the researcher shows that the results are consistent and repeatable (Lincoln & Guba 1985). The data were completely preserved, including interview audiotapes, hardcopies, reflection summaries and data analysis records. All of them were encoded, classified, and properly preserved for future reference. The interviews were conducted and transcribed verbatim by the first author. The in-depth interviews resulted in abundant data that reflected the self-experience of adolescents during peer interaction and this is identified as the transferability.

Data analysis

The study data were analysed using the phenomenological methods developed by Giorgi (2009). (1) The interviews were read for a sense of the whole. The recorded interviews were transcribed and then repeatedly read, and the text was summarised, which helped to create an understanding of the meanings expressed by the participants. In addition, the researchers used peer dialectics and discussed textual meanings to read for a sense of the whole. (2) The meaning underlying the transcripts was determined. The formation of meaning is a gradual process of abstraction from categories and subthemes to themes. The participants described their living world in a chronological order to guide the researcher to the participants' past living contexts and experiences. (3) The transformation of participants' natural attitude expressions into phenomenological psychologically sensitive expressions. The researcher used imagination to associate existing contexts and avoid missing any phenomenological essential structures. In addition, the researchers converted the descriptions of the participants

into professional terms to transform them into knowledge. In the end, the researcher tabulated the data to express the essential structure of the particular living experiences of the participants.

Results

The research findings showed that during peer interactions, adolescents conferred a symptomatic meaning on the existence of tics and peer friendship, forming a dynamic interaction process of self-state. Three themes became apparent: (1) the inexplicable onset of tics during encounters with other people; (2) sources inspiring the courage for self-acceptance; and (3) strategies of self-protection in response to changes in situation.

The inexplicable onset of tics during encounters with other people

During encounters with other people, the unexplained onset of tics and the corresponding lack of control of their bodies caused adolescents to feel panic. Thus, they lived in chaos. They desired to recover; however, they could only submit to their fate. The self-experience of adolescents included the peers' lack of knowledge of TS, unfamiliarity with and misunderstanding of the tics, rejection, and negative responses of dislike. Adolescents had to face their peers' reactions and responses. However, they also felt confused about the meaning of the onset of the tics. Although their families were willing to accept them, they had trouble tolerating the tics themselves. To avoid misunderstandings with their families, they pondered how tics occurred depending on the situation encountered.

The onset of tics shackles adolescents with TS

The inexplicable onset of tics caused adolescents to feel panic. Some peers rejected them and mocked their symptoms, which reflected how the image of adolescents with TS differed from that of healthy people from the perspective of their typical peers. Although adolescents did not suggest that their abilities were inferior to those of their peers, the presence of bias against them by some teachers and classmates was unavoidable. Adolescents tended to suffer from the loneliness of not being understood.

I cannot control my body at all. I just keep trembling and may even yell like a dog. I cry and yell at night until all of my family comes to see what has happened. The reason I cry is that I cannot tolerate the tics anymore. However, no one really understands me; otherwise they would not complain about the noise I make. (Participant K)

My classmates look at me in a strange way, and they even impose discrimination on me. They wonder why they are different from me because I will show some strange actions. I feel that I am not a part of the peer group, and I suffer from discrimination. (Participant A)

The secular 'me' from transmigration

Adolescents cared about peers' responses to their tics. They pondered how to avoid the attention of other people depending on the situation; they intentionally suppressed tics or maintained a distance from others in public. The inexplicable onsets of tics in childhood caused adolescents to suffer, and also frightened their peers. As they grew older and underwent the various changes associated with the growing process, adolescents and their peers gradually matured. The adolescents with TS gradually eradicated their negative emotions and developed the self-confidence to stop caring about what other people said or thought.

I feel nervous whenever there are other people around me, although they are my family. I still scream out in my room during the onset. However, the frequency is lower. The reason may be that I feel more relieved when I am at home. (Participant C)

The maturity of my senior high school classmates is one of the reasons why I have become more optimistic. However, I think the main reason is that I've also grown up, and my attitude has gradually been corrected. I do not regard myself as a freak now. (Participant E)

Sources inspiring the courage of self-acceptance

Adolescents share their thoughts with their good friends, and their good friends do not care about the onset of the tics. Moreover, the adolescents with TS try to make friends and live their lives like unaffected people to prove that they are people in whom their peers can believe. Successful examples of adolescents with TS have had support from their teachers and received recognition from their peers, which has enabled them to identify themselves and this has helped them to coexist with TS.

Peer recognition

Some peers may have questions about the onset of tics. However, support from good friends enables the adolescents with TS to obtain psychological support and consolation. They trust in their good friends and share their thoughts with them. They learn and look forward to male-female interactions. They partially identify themselves with the male-female interaction attitudes of their peers. The

support and recognition that they get from peers inspire the adolescents to go to school happily and temporarily forget the existence of their tics. If peers can interact with them in a normal fashion, TS is not a barrier to making friends.

My classmates make me feel happy. Sometimes, we play so happily that I forget that I suffer from tics. I feel that I am a normal person and my disease has vanished. Therefore, my friends are really important to me. (Participant G)

Being liked and accepted by my classmates makes me feel very happy, which also makes me like myself more. Because I have these close friends, it proves that, although I have TS, I can still be treated like a normal person and as a good friend. (Participant K)

Opportunity for self-identity

The adolescents with TS often complained about their fate and wondered why they suffer from this mysterious disease. Nonetheless, they are inspired by successful examples of individuals with TS and began to value themselves. They made efforts to improve their individual strengths and this helps make their peers see their true selves, instead of 'selves suffering from tics'. Acceptance, identity, and recognition from peers, and their interactions with other adolescents enabled them to overlook their symptoms. Tolerance and respect from parents and teachers encouraged them to free themselves from the shackles of the TS.

The main actor in the movie, "Front of the Class", who treats TS as a friend and learns from it, is a role model for all TS patients. Because of this successful case, I believe that I can overcome TS and move towards my goals too. (Participant C)

I feel that I should try my best to accept myself without regarding myself as a disadvantaged person. Because I suffer from TS, I should develop more personal characteristics and strengths to cover up the disadvantage related to suffering from TS. I have to like myself and identify with myself first, before winning recognition from my peers. (Participant J)

Strategies of self-protection in response to changes in situations

The adolescents who have experienced TS for many years found that particular situations were associated with the onset of tics. Therefore, they tend to face a dilemma caused by the onset of tics. They care about and probe peers' responses to themselves. They adopt strategies of self-protection in response to the situations that give rise to tics and maintain peer relationships according to their interactions with different peers. They endeavour to retain their

image as normal people in front of their peers to obtain social recognition for the value of self-existence.

Adjustment to symptom-related situations

Adolescents with TS find that certain situations, such as pressure, sleep deprivation, and their emotional state, are associated with the onset of tics. Although they try to avoid these situations, many situations in life cannot be predetermined. Therefore, they may not be able always to control the onset of symptoms. They are afraid that the tics may interfere with their peer interactions. They think about many strategies to maintain their peer relationships, such as apologising actively, tolerating criticism, and staying away from peers to avoid exposing their tics. Additionally, they try to deal with tics calmly without letting peers know, avoiding and ignoring criticism and sharing food with friends to improve friendly interactions. Their long-term suffering from TS makes adolescents think about self-protection strategies. They also bravely face the damage caused by their peers.

I am nervous about the onset of tics during school openings and examinations. I will start to scream out when I am nervous. I think pressure may aggravate the onset. However, as long as the pressure is alleviated, the symptoms are not severe. (Participant G)

I don't want to make odd movements or sounds. My discomfort becomes a joke in my class and my classmates tease me about it. I sure feel sad and humiliated. Sometimes, I pretended I don't hear the gossip, and then after school, I listened to music to obtain relief or play basketball to forget the sadness. (Participant K)

Endeavouring to maintain the image of normalcy

Adolescents with TS accept that peers have different responses and attitudes towards the existence of tics. Therefore, they think about whether or not to suppress the tics according to the situation. Although they have to bear indescribable pain to suppress their tics, this is the only way they can feel they are the same as their peers and feel relieved. Suffering from TS also allows adolescents to obtain exclusive rights their peers may not have. For example, they may apply for a military service exemption and special examination places. Because they care about the opinions of their peers, they would rather give up some of these rights so that their peers do not think that they are different from unaffected people.

Although I can play happily with my friends and earnestly study with them, I still intend to suppress my tics because I don't want to be seen as different to my friends. (Participant L)

I know people with TS can apply for a special examination room. I care how people view me, so I won't apply. I am afraid people would think I have problems if I applied for a special examination room. I don't want to be different. I want to be like my friends. (Participant J)

Discussion

The findings show that during peer interactions, adolescents with TS experience the conferred meaning of their tics, peer friendship, and a dynamic interaction process of self-state. The onset of tics causes the adolescents to become unpopular in social settings, which can lead to their embarrassment, shyness and social isolation, as well as conflicts and confusion in interpersonal interactions. The research results of this study are consistent with those of relevant past studies (Ohm 2006, Walkup *et al.* 2006, Rindner 2007). Peers see, hear, and feel that tics are symbols that cannot be explained using common sense, the peers become frightened and this invokes questions about the individuals with TS. Studies have also indicated that tics may lead to uncommon, unfriendly and negative responses from peers, which reduces the social interactions of adolescents with TS (Stokes *et al.* 1991, Holtz & Tessman 2007, Cutler *et al.* 2009). The research findings are consistent with the tenets of symbolic interactionism in which people communicate with one another through symbols (Cleveland 2009, Charon 2010). A symbolic meaning is conferred on the tics through the reactions and responses of the adolescents' peers. When peers fail to accept and understand the tics, most of the adolescents with TS experience social difficulties and low self-esteem; they seek to avoid mocking by their peers. They may even feel that they are invisible, disadvantaged people who need help. Therefore, they may shrink back from group interactions. Moreover, the mocking by their peers reflects how the external image of the tics is not accepted by their peers. This finding is consistent with the concept of the 'looking-glass self' in symbolic interactionism (Charon 2010). Adolescents also share the same social and cultural contexts and relationships as their peers. They naturally imagine that their peers should also have similar responses to the existence of tics, which is similar to self-shaping in the looking-glass self. Therefore, whether adolescents experience a process of social identity may also be participant to self-other social interactions and the symbolic meaning of tics as conferred by other people. During self-observation, individuals not only observe their external image but also inspect whether or not they meet the looking-glass self of social culture and regulations

adequately. The research findings also show that during the interpretation of symbolic meanings, it is necessary to reflect on the relationship between individuals and social context (Cleveland 2009).

The results show that as they get older, the adolescents learnt how to hide their symptoms and became sensitive to the friendly, unfriendly or unintentional messages expressed by peers. Some peers are able to empathise and understand adolescents suffering from TS and provide them with help. Previous qualitative research also has indicated that, as they get older, adolescents learnt to control and cope with the tics, which is beneficial when making friends and for the development of supportive friendship (Wadman *et al.* 2013). Nonetheless, the results show that getting older and controlling their tics are not the main factors related to supportive friendship. Peers' empathy and acceptance are critical factors affecting the development of good friendships. Healthy peer relationships can help adolescents with TS obtain a collective identity and a social identity, and thus develop self-confidence. With self-confidence, they question their abilities less often in relation to having tics, and they further affirm their self-worth and obtain a more positive self-identity. These findings reflect the concept of self-identity proposed by Mead (1934). Role-taking is one of the most important approaches to obtaining identity. In other words, adolescents can gain self-identity through learning and imitating significant others and the responses of other people.

When adolescents begin to develop romantic relationships, they start to pay particular attention to their external image (Lerner & Steinberg 2009). Adolescents with TS observe and learn proper interactions between peers and classmates of the opposite sex to develop healthy interactions with the opposite sex. During adolescence, peers provide one another with comparisons of and assessment of choices and this even includes body changes. It becomes necessary to be popular with peers (Feldman 2008). However, in this study, the adolescents did not blindly follow all of the approaches that their peers used, especially regarding discussion on and imagination of sex. Although they sometimes follow these trends, they understand that it is important to respect the opposite sex and abide by their own code of ethics. Other studies have not included questions about romantic issues.

Our results showed that the adolescents with TS felt that school teachers treated them like unaffected students, including respecting and maintaining the adolescents' privacy. Teachers assisted them in maintaining healthy interactions with their peers, and listened to and cared about their needs and problems. This attention and support from

teachers helped adolescents with TS develop and maintain healthy and stable peer relationships. Moreover, the adolescents shared successful examples of individuals with TS, disease-related information from books and media and even their personal experiences with their peers. This enabled their peers without TS to understand that TS is not a rare disease and that individuals with TS are not inferior to other people because they have TS.

Due to their long-term suffering, adolescents with TS are highly sensitive to the relationship between the onset of symptoms and specific life situations. They always worry that the onset of tics may interfere with their relationship with their peers, leading to unfriendly judgments and even causing conflicts. They develop different self-protection strategies when facing these different situations. The discourse of symbolic interactionism mentions that the self includes the formation of participant and object (Blumer 1986). The participants (I) of the adolescents with TS respond to their peers according to their peers' responses and reactions while the objects (me) respond through other peoples' responses and reactions. Therefore, the importance attached to other peoples' thoughts is similar to that attached to the individuals themselves. Phenomenology suggests that the self consists of an identity with multiple appearances that describes how the self is constructed and these are reflected in the individuals and other people (Sokolowski 1999). Our findings showed that adolescents with TS would rather suppress tics and make themselves feel uncomfortable to maintain an external image of seemingly mild TS because they care about their peers' opinions about the onset of their explicit symptoms. This is consistent with the theory of the looking-glass self (Charon 2010). Adolescents intentionally maintain a seemingly normal external image to maintain social interactions and obtain social identity. Adolescents adopt safe self-protection strategies when communicating and interacting with peers. However, such an approach also leads to the formation of invisible distances and boundaries for peer interactions. The self-experience of adolescents with TS with respect to peer interactions is affected by social and cultural contexts and relationships, traditional values, conventions, social structures, individual emotional pressure and the depth of the peer relationship.

Limitations

This study used purposive sampling to enrol 12 adolescents from the TTFA, conforming to the phenomenological methods as proposed by Giorgi (2005). Thus, the sample size was small and therefore, the research results may not be extended to the overall self-experience of all adolescents with TS during peer interactions.

Conclusion

New knowledge concerning the self-experience of adolescents with TS during the peer interaction process was obtained during this research. People obtain and interpret the meanings of things through social interactions. The interpretation process includes self-reflection and symbolic interactions with other people (Mead 1934, Blumer 1986). The symbolic meanings of the tics conferred by peers and their interpretation process are associated with the adolescents' social and cultural relationships and contexts of adolescents. Adolescents obtain self-identity through role-taking and peer acceptance, recognition and interaction processes. If adolescents with TS fail to do the above, they may fall into a development crisis of self-confusion. The main reasons why adolescents accepted coexistence with TS is not only associated with peer interaction. Additionally, care, respect and support from their teachers and family are sources of courage when seeking self-acceptance.

Relevance to clinical practice

Recognising this phenomenon helps nurses and healthcare providers to assist adolescents in understanding the occurrence of tics and their relationships with their living situations, social culture and interpersonal interactions, in addition to learning about self-care. The school nurse should periodically hold seminars and activities related to TS to help parents, teachers, students and communities to build up an understanding of TS. Additionally, nurses

can help adolescents with TS to accept themselves and coexist with TS. Healthcare providers can assist parents of adolescents with TS to understand and respect the characteristics of their children's physical and mental development. They can also provide emotional support and coping strategies. Future studies should perhaps explore the social adjustment experience of adolescents with TS, which will provide empirical data about transitioning into adulthood.

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Contributions

Study design: MYL, PFM; data collection and analysis: MYL, PFM, WSW, HSW and manuscript preparation: MYL, PFM, WSW, HSW.

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Conflict of interest

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