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Characteristics of the Defense Mechanism Technique modified (DMTm) as Related to Age and Gender of Adolescent Inpatients at a Psychiatric Clinic

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A cross-sectional developmental study of 326 non-psychotic inpatients at a child and adolescent psychiatric clinic was carried out making use of the Defense Mechanism Technique modified (DMTm). The 139 girls and 187 boys were divided into three age groups: 12–13, 14–15 and 16–17 year olds. It was predicted on the basis of previous research that the younger boys would exhibit the defense of inclusive affect isolation more frequently than the older ones. This was found to be the case, this same age-related difference being found for the girls and for the group as a whole. The sign of disappearance of hero/heroine (H) was found more frequently in the younger than the older subjects, and the sign of H sad more frequently in the 14–15 year olds. As expected, the girls were scored for the identity defense of denial through reversal III more often than the boys. Other characteristics found more frequently in the girls than the boys were repression at the site of the attribute (A-repression) and the signs of H sad and A a child. The identity defense of denial through reversal I and the sign of splitting (split H) were characteristics more often observed in the boys than the girls. The findings were interpreted in terms of the Andersson developmental and psychodynamic model of the mind.

Keywords: Adolescence, adolescent psychiatry, cross-sectional development, Defense Mechanism Technique modified (DMTm), percept-genesis

The Defense Mechanism Technique modified (DMTm), a percept-genetic tachistoscopic technique interpreted in terms of the Andersson (1991; Andersson & Ryhammar, 1998) developmental and psychodynamic model of the mind, is intended for use from the age of 12 onwards, i.e. from the beginning of what Blos (1967) refers to as the second individuation process of the self. Yet the participants in systematic studies using DMTm are mostly adults. Of 40 DMTm studies carried out 1985-2004, summarized in Andersson (2004), only three

involved adolescents. Two of these are of relevance for the present study and will be referred to here.

Rundkvist and Sandström (1993) examined, in a group of 12–18 year old inpatients at a child and adolescent psychiatric clinic, the extent to which one variant of the DMTm defense of denial (denial 1) and one variant of the defense of affect isolation (isolation 4) were related to age, gender and four symptom dimensions obtained from interviews with parents and teachers of the subjects by a social worker. The symptom dimensions, identified earlier by Cederblad and Höök (1984, 1991) by means of factor analysis, denoted the extent to which the adolescents were acting out, were antisocial, were anxious or were mentally inhibited. The affect defense of isolation 4, referred to recently as inclusive affect isolation (Andersson, Wilhelmsson & Tollin Olsson, 2007a, 2007b), was found more often in subjects who scored high on acting out than in those who scored low on this dimension. This affect defense was also observed decidedly more often in adolescents who scored high on either or both of the acting out and antisocial dimensions than in those who scored low on both dimensions. In addition, 12–13 year old boys showed inclusive affect isolation more frequently than boys 14–18.

Holmberg and Olsson (1994) gave DMTm to a small group of 15–19 year olds, all of whom were in need of care due to their drug abuse or criminal behavior. Subjects who assessed their relations with others as being negative were often scored for the sign of disappearance of threat. Denial through reversal III, an identity defense that in the DMTm genesis involves the gender of the non-threatening young person there being reversed, was obtained more often for girls than for boys.

At the psychiatric clinic where Rundkvist and Sandström (1993) conducted their study, DMTm was employed from the end of the 1980s on as a part of the psychological evaluation of adolescent inpatients. This was one reason for the present cross-sectional developmental investigation of a large group of non-psychotic adolescents tested at that clinic by use of DMTm being carried out. We were interested in how all the main signs and sub-signs included in the latest DMTm manual (Andersson, 2004) were distributed in such a group with respect to age and gender.

Two predictions were made. In line with what was found by Rundkvist and Sandström (1993), younger boys were expected to be scored for the defense of inclusive affect isolation more often than older boys. The finding by Holmberg and Olsson (1994) that girls display the identity defense of denial through reversal III more often than boys do agrees with results of

studies comparing women and men (Andersson & Ryhammar, 1999; Andersson & Montgomery, 2005). A similar result could thus be expected for the present subjects.

METHOD

Participants

The participants were adolescents who had been tested with DMTm during a four-to-six-week stay as inpatients at a child and adolescent psychiatric clinic at some time during the period of 1988–2005. None of them were diagnosed as having a psychosis. The few cases of IQ lower than 80 or of confirmed brain damage were excluded in the analyses. The 326 adolescents altogether, 139 girls and 187 boys, were divided into the three age groups of 12–13, 14–15 and 16–17, the numbers for the girls being 22, 77 and 40, respectively, and for the boys 35, 95 and 57.

Defense Mechanism Technique modified

In DMTm (Andersson & Bengtsson, 1985), as in its forerunner the Defense Mechanism Test (Kragh, 1960), two picture motifs are shown tachistoscopically, for each of them the exposure times in a series of 20 exposures increasing successively, from 5 to 1150 milliseconds. In both pictures a threatening, peripherally-situated adult person (referred to as Pp), who in the first picture is of female (“the threatening mother”) and in the second of male gender (“the threatening father”), can be seen. In both pictures there is a centrally-placed child or young person (hero/heroine or H) of the same gender as the subject, and also a disguised sexual attribute (referred to as A) located in front of H. The DMTm was administered to the present subjects by one of us (CS) or by undergraduate students supervised by him.

The DMTm pictures are aimed at arousing various forms of anxiety that can find expression either directly in the subject’s reports or indirectly as various forms of defense against anxiety. The scoring, concerned with the subject’s drawings and verbal reports pertaining to each of the 40 exposures (20 from each of the two DMTm series), also provides some “additional signs” not referred to as expressions of anxiety and defense yet important in diagnostic terms.

The scoring, conducted in accordance with the 70 main signs and sub-signs contained in the latest manual (Andersson, 2004), was carried out by one of us (ALA, the originator of the scoring scheme). The identity defense of denial through reversal III 4 (H’s gender not being specified on any of the exposures in a series) was not found in any of the subjects. The

scoring of the signs referred to in the results section was based on information of the following kinds obtained on the basis of the DMTm reports in either of the two series:

A-repression (repression 7–8). A being seen as (7) a petrified, inanimate or disguised being or as (8) an animal.

Affect isolation (isolation 3–4). Pp being seen as (3) a white or shining object or surface (partial affect isolation) or (4) there being a total loss of the specific content in the exposure preceding the loss (inclusive affect isolation).

Denial through reversal I. H being seen as (1) doubled or multiplied persons or (2) both H and Pp being children, 15 years old or younger, on at least two exposures and Pp being seen as neither threatening nor unpleasant on these exposures.

Denial through reversal III. H's gender being (1) changed from being correct to being incorrect or (2) its being incorrect on at least eight consecutive exposures, but not on all the exposures on which it is denoted or (3) H's gender being denoted but not being correct on any of the exposures in a series.

Splitting (split H). H being seen as doubled persons that differ or are separate from each other.

Disappearance of H. Complete disappearance of H after being reported as being a person (not scored in combination with inclusive affect isolation).

A a child. A being reported to be a child.

H sad. H being explicitly reported as being sad or unhappy (not scored in combination with introaggression).

RESULTS

The results reported are those regarding which predictions were made – sub-signs of denial through reversal III being included, together with the main sign of this identity defense – and for which a statistically significant difference ($p \leq .05$, two-tailed) was obtained. Regarding other findings, only very clear-cut ones ($p \leq .01$, two-tailed) will be taken up.

As expected, the DMTm defense of inclusive affect isolation (isolation 4) was found to be related to age in the boys, this affect defense being more common in the younger than the older boys. The same relationship between age and inclusive affect isolation was also found for the girls, and thus for the participant group as a whole. Partial affect isolation (isolation 3) was not found to contribute to the relationship observed between age and the defense of affect isolation (Table 1).

Table 1. Numbers of occurrences and non-occurrences, respectively, of the DMTm sign in question in the three age groups for the girls, the boys and for the girls and boys combined.

Sign in DMTm	12-13	14-15	16-17	χ^2	p
Girls					
Isolation 4	13/9	38/39	10/30	8.79	.01
H sad	8/14	46/31	13/27	9.29	.01
Boys					
Isolation 4	25/10	47/48	20/37	11.46	.003
Girls and boys combined					
Affect isolation	41/16	100/72	40/57	14.71	.0006
Isolation 4	38/19	85/87	30/67	19.32	.00006
Disappearance of H	9/48	6/166	5/92	11.48	.003
H sad	14/43	69/103	23/74	9.60	.008

Note. There are two degrees of freedom in the χ^2 -tests. Numbers in fat type denote related characteristics (also Table 2).

Table 2. Numbers of occurrences and non-occurrences, respectively, of the DMTm sign in question for the girls and the boys in each of the three age groups and these groups combined.

Age group	Sign in DMTm	Girls	Boys	χ^2	p
12-13	Denial through reversal I	3/19	19/16		.002
	Denial through reversal I 1	3/19	18/17		.005
	Denial through reversal III 2	9/13	5/30		.03
	Splitting	1/21	14/21		.004
	A a child	7/15	1/34		.004
14-15	A-repression	24/53	4/91		.00000
	Repression 7	10/67	2/93		.006
	Repression 8	18/59	2/93		.00001
	Denial through reversal III	44/33	38/57		.03
	Denial through reversal III 2	23/54	15/80		.04
	Denial through reversal III 3	8/69	2/93		.04
	A a child	34/43	2/93		.00000
	H afraid	15/62	6/89		.01
	H sad	46/31	23/72		.00000
16-17	A-repression	12/28	0/57		.00001
	Repression 8	8/32	0/57		.0005
	Denial through reversal III	27/13	19/38		.001
	Denial through reversal III 1	18/22	14/43		.05
	Denial through reversal III 2	11/29	3/54		.003
	A a child	11/29	1/56		.0002
12-17	A-repression	41/98	5/182	45.15	.00000
	Repression 7	17/122	2/185	16.12	.00006
	Repression 8	29/110	3/184	31.27	.00000
	Denial through reversal I	36/103	83/104	10.97	.0009
	Denial through reversal I 1	34/105	75/112	8.08	.004
	Denial through reversal III	83/56	68/119	16.56	.00005
	Denial through reversal III 1	54/85	50/137	4.84	.03
	Denial through reversal III 2	43/96	23/164	16.02	.00006
	Denial through reversal III 3	18/121	5/182	11.32	.0008
	Splitting	17/122	44/143	5.97	.01
	A a child	52/87	4/183	67.26	.00000
	H sad	67/72	39/148	25.94	.00000

Note. When no χ^2 -value is given, the p-value refers to Fisher Exact Probability Test, two-tailed.

The sign of disappearance of H was more prevalent in the younger adolescents than in the older ones. Both for the girls and for the girls and boys combined, the sign of H sad was more typical of the 14–15 year old subjects than of the subjects in the other two age groups (Table 1).

As expected, the DMTm identity defense of denial through reversal III was found more often in the girls than in the boys, a result that also held for each of the sub-signs of this defense (III 1, III 2, III 3). Denial through reversal III, either as a main sign or as one or more of the sub-signs or both, was also found more frequently for the girls than for the boys in each of the age groups (Table 2).

Other signs more typical of the girls than of the boys in the age groups combined, or in one or more of the age groups examined separately, were A-repression (including repression 7 and 8), A a child and H sad. Like H sad, H afraid was a sign more often found for the girls than for the boys in the 14–15 year age group (Table 2).

In the group of subjects as a whole, signs more often found in the boys than in the girls were splitting and the identity defense of denial through reversal I. These signs were found particularly more often in the boys than in the girls of the 12–13 year old group (Table 2).

DISCUSSION

Can the age changes found be regarded as applying to a cohort of similar subjects? This is an issue of particular relevance in interpreting results in a cross-sectional developmental study such as the present one. Unfortunately, the four symptom dimensions employed by Rundkvist and Sandström (1993), indicating the extent to which their patients were acting out, were antisocial, were anxious and were mentally inhibited, were not available for most of our subjects. With the exception of one 18 year old boy, the 90 subjects that they studied were a subgroup of the present 326 subjects. In that subgroup, 21 % were 12–13 and 79 % 14–18 years old, a distribution rather close to that for these age groups in the present total group, in which 17 % were 12–13 and 83 % were 14–17 years old. The distribution of girls and boys was also much the same in the two studies, 40 and 60 %, respectively, in the Rundkvist and Sandström study and 43 and 57 % in the present one.

Rundkvist and Sandström, examining the extent to which there were statistically significant differences between the girls and boys they studied, and between the two age groups involved, on any of the four symptom dimensions, found there to be none. We have presumed here that similar results hold for the present group as a whole, thus considering it to be a cohort of similar patients. In line with this, the differences between the age groups in their

DMTm results found here can be regarded as representing genuine age changes in non-psychotic adolescents under consideration at a child and adolescent psychiatric clinic. How can one best understand then the rather definite result of the defense of inclusive affect isolation being employed more often in early than in later adolescence by both gender groups, and not simply by the boys as the findings of Rundkvist and Sandström (1993) suggested?

In the Andersson (1991; Andersson & Ryhammar, 1998) developmental and psychodynamic model of the mind, which is intended to have universal applicability, there is a resemblance between the oedipal period and the adolescent period, a similarity that the idea of corresponding positions also suggests. The early adolescent group 12–13 years old is referred to in the model as representing position 7, a position seen as a higher-order reconstruction of position 3 in the early oedipal period. In terms of the Melanie Klein (1935, 1940, 1946) affect positions model—which is one of five psychodynamic models of the mind included in the Andersson model—position 3 is denoted as the manic-obsessional position, in which the specified motive for the defense of affect isolation is to be found. Since early adolescence can be understood as a reconstruction of the manic-obsessional position, we presume that in line with the Andersson model both the boys and the girls can often be characterized during this period by their extreme attempts to make themselves unaffected by mental pain (affect anxiety). The defense of inclusive affect isolation appears to be the ultimate strategy for this. In terms of DMTm, this affect defense can be seen to represent a total annulment of the subjective, affective world.

The only clear-cut relationships in addition to inclusive affect isolation that were found between the adolescent age groups and DMTm signs were those of disappearance of H and H sad. These signs, listed under “additional signs” in the DMTm manual (Andersson, 2004), are not regarded as expressions of anxiety or defense against anxiety, but rather are given a literal interpretation. H sad may thus indicate a projected feeling of sadness, more often characterizing the 14–15 year olds, the girls of this age in particular, than the younger and older subjects. In a previous study of women with eating disorders (Wilhelmsson & Andersson, 2005), this sign was often found in patients having a diagnosis of depression, in those who used excessive exercise for lowering their weight, and in those belonging to a bulimic cluster of women characterized by their “difficulties in expressing and handling mental pain (affect anxiety) on a symbolic level”.

Disappearance of H, a sign often found here in the 12–13 year olds, is seen to imply that in the DMTm genesis there is a temporary “rejection of the self”. This sign, together with similar signs, was reported earlier to be found in some schizophrenic patients (Löf & Svensson,

1993) and also to be found more often in women who had sought psychiatric help than in women, matched with respect to age, social status and social situation, who had not (Strand & Andersson, 1994).

The DMTm identity defenses of denial through reversal are conceived in the Andersson model as being a response to an interpersonal situation characterized by an aggressive attack from a non-empathic parental figure “outside” the projected self. There are two specified motives for this response derived from the model of self and selfobject as formulated by Heinz Kohut (1971, 1977, 1984). One of these motives is referred to as the danger of loss of the idealized object, which appears in the early part of the oedipal period (position 3), the other being referred to as the danger of loss of the grandiose self in the middle part of the oedipal period (position 4). The scoring of denial through reversal is based to a large extent on what can be seen as being the three most important demands the child needs to deal with during the oedipal period: that of separating from and being different from the other (the early part of position 3, linked with denial through reversal I and II), that of determining the gender to which it belongs (the late part of position 3, linked with denial through reversal III), and realizing which generation it is a member of (position 4, linked with denial through reversal IV). Any of the various forms of denial through reversal indicate the subject to fail to uphold these distinctions.

The present results point, as expected, to the adolescent girls attempting more often than the adolescent boys to maintain a relationship to an idealized (positively valued, not aggressively attacking) object (“parental figure”) by use of the identity defense of denial through reversal III, i.e. “self-denial of own gender”. The fact that the adolescent boys, particularly those 12–13 years old, differed in their attempt to maintain a relationship to an idealized object from the adolescent girls through their more often utilizing the identity defense of denial through reversal I is a finding of interest that was not predicted. The failure to uphold separateness this identity defense is seen as signifying suggests the adolescent boys to often have very strong dependency needs.

The fact that the issue of gender (and sex) can be involved in DMTm in ways other than through the identity defense of denial through reversal III was emphasized in the previously mentioned study of eating disorders conducted by Wilhelmsson and Andersson (2005), who found that women who were “having their anorexic symptoms but refusing to in any way be touched by them” not only were characterized by this identity defense but also were frequently scored for the signs of A-repression and A a child. These women thus involved the attribute (A) in their DMTm report just as in the present study the adolescent girls did so more often

than the adolescent boys. Although both A a child and A-repression can be regarded as popular responses on part of the girls, one should note that A-repression in DMTm also can be seen as a displacement of “the evil” to the disguised sexual attribute.

Along with the sign of A a child, there were three other “additional” DMTm signs that differentiated the gender groups. H sad, which was more common for the 14–15 year old girls than for the girls of the other two age groups, also occurred more frequently in these girls than in the boys of the same age (as it also did for the girls as a whole than for the boys). In addition to the projected feeling of sadness indicated by H sad, it is intriguing that a projected feeling of fear (H afraid) was more frequent in the 14–15 year old girls than in the 14–15 year old boys. Finally, when the sign of splitting is added to the identity defense of denial through reversal I 1, it is usually given the literal interpretation of “a split self” (Andersson & Hallborg, 1986). This sign, found to be more frequent for the boys than for the girls, especially the youngest boys as compared with the youngest girls, has been observed to be more common in persons with strong fear of flying than in those without such a fear (Amné, 1996) and also to be more common in psychotic than in non-psychotic drug abusers (Aleman, 2000) and in men abusing heroin as their basic drug than in women abusing heroin and men abusing amphetamine (Andersson & Montgomery, 2005).

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