

THE RELATIONSHIP BETWEEN TYPUS MELANCHOLICUS AND UNIPOLAR DEPRESSION: A LITERATURE REVIEW

Emilie Oudart¹, Catherine Hanak² & Sarah Ammendola³

¹Université Libre de Bruxelles, Psychosomatics Unit, Centre Hospitalier Universitaire Brugmann, Brussels, Belgium

²Addictology Unit, Centre Hospitalier Universitaire Brugmann, Brussels, Belgium

³Psychosomatics Unit, Centre Hospitalier Universitaire Brugmann, Brussels, Belgium

SUMMARY

Background: The *Typus Melancholicus* (TM) is the premorbid personality of endogenous depression defined by Tellenbach and Kraus and characterized by orderliness, conscientiousness, norm orientation and intolerance of ambiguity. Tellenbach's hypothesis was to find around 50% of TM in the sample of patients with an Unipolar Depression (UD). The present paper aims to make a literature review on the relationship between the *Typus Melancholicus* (TM) and Unipolar Depression (UD).

Methods: Nineteen references were selected through searches on PubMed, Google Scholar and Sciences-Direct with the following MeSH terms in the title: *Typus Melancholicus AND Depressive or Depression or Dépression or Depressione*. Nine of them were selected for our review.

Results: Eight of the nine reviewed articles confirm Tellenbach's hypothesis. The literature review also shows that, in a population of UD, TM is always constant regardless of age or sex, has no relationship to clinical characteristics and could contribute to the chronicity of depression. The TM with depression have increased levels of "lack of vital drive" and "feelings of guilt" and low scores in irritability and dysphoria compared to Non-*Typus Melancholicus* (NTM). Due to its characteristics, TM could also be involved in some pathologies such as burnout or postpartum depression. TM does not seem to be linked to a particular Personality Disorder or maladaptive personality, but the two may coexist in certain circumstances. It has been suggested that specific psychotherapeutic methods can be used to treat TM with UD.

Conclusions: The TM could be very useful in our clinical practice. Better practical knowledge of TM could lead to more efficient psychiatric care as well as heightened capacity to predict new episodes.

Key words: *Typus Melancholicus - Unipolar Depression - premorbid personality*

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INTRODUCTION

In 1959, Hubertus Tellenbach, a German psychiatrist, made a catamnesis of 119 patients diagnosed with a unipolar depression (UD) and hospitalised in the Heidelberg University hospital. He made an empirical-phenomenological analysis based on patient description and behaviour (empirical) combined with phenomena observed in their interactions with the world and others (phenomenological) (Stanghellini & Mundt 1997, Ambrosini et al. 2011, Englebert et al. 2018).

He identifies a premorbid personality structure that could be more vulnerable to endogenous depression and tries to explain the pathway between this premorbid personality and endogenous depression. It is important to mention that the diagnosis of *Typus Melancholicus* (TM) has to be done – by definition – when the depression is over (Stanghellini & Mundt 1997).

Definitions

In 1961, Tellenbach highlighted two characteristics of *Typus Melancholicus* that influence the interpersonal relationships of the individual: Orderliness and Conscientiousness (Englebert et al. 2018).

In 1977, Kraus, a disciple of Tellenbach, added two more characteristics that focus on the way the individual interacts with his environment: Hyper/Heteronomia and

Intolerance to ambiguity. These four characteristics make the final definition we know today (Englebert et al. 2018).

The definitions used here serve as simplified outlines of TM core properties and therefore do not fully reflect these authors' in-depth explanations.

Criteria 1.

Orderliness is described as an obsession with harmony in interpersonal relationships. Indeed, the TM always seeks to respond to expectations of social partners and is overly influenced by social standards. (Ambrosini & Stanghellini 2006, Englebert & Stanghellini 2016).

It is important to differentiate the TM's need for order from that of the obsessional-compulsive personality (Kimura et al. 2000, Englebert & Stanghellini 2016): The need for order of the obsessional-compulsive personality is more focused on organisation of material objects while the behaviour of the TM is mainly oriented towards interpersonal relationships (Sato et al. 1995, Englebert & Stanghellini 2016).

Criteria 2.

The word conscientiousness is used to describe the need to prevent guilt attributions and guilt feelings. Any conflict being potentially a source of guilt, the TM will do anything to avoid conflict which implies that he is

very demanding of himself (Ambrosini & Stanghellini 2006, Englebert & Stanghellini 2016).

Criteria 3.

Hypernomia can be defined as exaggerated norm adaptation and Heteronomia as exaggerated external norm receptivity. Roles and rules are mostly passively accepted and followed uncritically (Heteronomia). Additionally, the TM is in extreme difficulty if forced to modify or transcend them (Hypernomia) (Ambrosini & Stanghellini 2006).

Criteria 4.

Intolerance of ambiguity refers to the emotional and cognitive incapacity of the TM to host opposite feelings at the same time about the same object, person or situation (Stanghellini & Mundt 1997, Ambrosini & Stanghellini 2006).

It has been established by empirical studies that the TM is present in over 50% of patients with an UD, ranging from 30 to 70% prevalence and thus supporting the hypothesis that TM constitutes a specific vulnerability factor (Stanghellini et al. 2006).

Our aim here was to conduct a literature review examining the relationship between Typus Melancholicus and depression.

METHODS

Our aim here is to better understand the relationship between TM and depression.

For this purpose, we chose to make a literature review about the relationship between Typus melancholicus and depression. It is established that Typus melancholicus is by definition the premorbid personality of melancholic depression: the existence of this link was established in different studies. However, we did not find any recent literature reviews in English discussing the link between TM and UD. Therefore we chose to write it today.

References were identified through searches on PubMed, Google Scholar and Sciences-Direct conducted until May 2020, by use of the following MeSH terms in the title:

- Typus Melancholicus;
- Depression or Depressive or Dépression or Depressione

The articles resulting from these searches were reviewed. There was no restriction on publication date. Only articles published in English, French or Italian were included. We found 19 articles. From these, we excluded one which was the same in French and English (we kept the French version). We excluded two articles from 1967 and 1971 because we did not find the whole article on the internet (only the titles were available). We also excluded 5 articles from our literature review because they were theoretical synthesis about the link between Typus Melancholicus and depression whereas

we chose to take a quantitative point of view. We excluded one which was a pilot study. Finally, we excluded one last article because it was a comparison between TM and personality disorders in a population of UD that did not contain clear data about the relationship between TM and UD. The summary of these choices is available in figure 1.

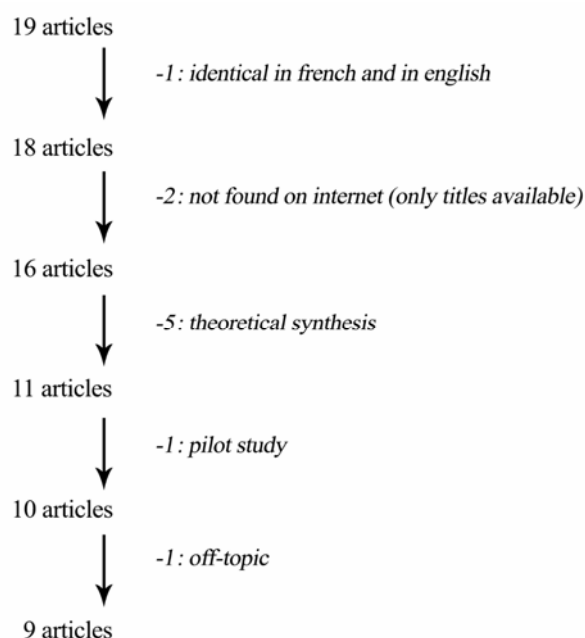


Figure 1. Relationship between TM and depression

We chose to limit our analysis to the link between TM and UD and ignore for example the relationship between Depression and other personality disorders possibly named in these articles.

Some articles measured the relationship between TM and UD by reporting the percentage of TM in the UD population, while others compared means scores on different measurement scales of the two groups. Four different scales were used in our articles. The amount of different scales used to measure Typus Melancholicus and the fact that we did not find any clear cut-off for the first three scales could possibly be explained - according to Stanghellini et al. - by "the difficulty of turning the theoretical complexity of this construct into easy-to-use diagnostic criteria." (Stanghellini et al. 2006).

In conclusion, we found nine articles exploring the link between TM and depression.

RESULTS

Five of the nine articles were published in Japan. These will be covered first.

Article 1.

The first article of our review was published in 1993 by Sato et al.: the aim of this article was to measure age and sex distribution and relationship to clinical characteristics of depression such as onset age, previous

depressive episodes, life events up to one year before the index episode, history of hypomanic episodes under antidepressant therapy undergone for depressive episodes, family history of major affective disorder, early parental loss experienced before age of 16, and the 4-month outcome under pharmacotherapy using antidepressants. The sample was composed of 110 outpatients with UD (DSM-III-R). They were classified following Kashara's scale (KS) score, a questionnaire of 15 items scored from 0 to 1. A score over 11 was considered as TM.

In this sample of UD outpatients, 74% of patients were Typus melancholicus.

The results also show that the TM score in depressives is always a constant, regardless of age or sex and that the TM has no relationship to clinical characteristics except hypomanic episodes and early parental loss: patients with a higher TM score had no history of previous hypomanic episodes and patients with a lower TM score had a significantly lower prevalence of parental loss before the age of sixteen.

Article 2.

A year later, Sato et al. published another study about age distribution of the TM but this time they made a comparison of 119 outpatients with UD (DSM-III-R) versus 600 controls (Sato et al. 1994). They also used the KS. We calculated the middle score of the two groups. We saw that the KS score of the control group was 9 ± 3.2 and the score of the patients' group is 12.06 ± 1.85 .

The score of the patients' group was always at a high level, regardless of age and was – except for the oldest subjects – always higher than that in the control group.

Article 3.

In the same year, Nakanishi et al. published an article about the chronicity of UD in a population of TM outpatients with UD (Nakanishi et al. 1993). They also studied the influence on chronicity of other factors but this is off-topic.

They retrospectively examined 70 depressive outpatients with melancholic type (DSM-III). They use two different scales to select the TM: The KS and the von Zerssen score (also known as F-List).

The von Zerssen score consists of 66 items scored from 3 to 0 with reversed items and some two-fold weighting items. The possible range, therefore, is between 0 and 222 (Furukawa et al. 1997, Ueka et al. 2006).

In this sample, 49 patients recovered and 21 had a chronic course over a period of two years.

Their data shows that both high and low scores of TM greatly contribute to chronic and episodic courses, respectively. Indeed, the mean von Zerssen's score on the Episodic group was 133.3 ± 16.7 and for the Chronic group, 145.2 ± 14 . The mean score on KS was 11.1 ± 1.6 for the Episodic group and 12.4 ± 1.1 for the chronic group (Nakanishi et al. 1993).

Article 4.

Using the same scales, Furukawa and Nakanishi examined whether TM is a distinguishing premorbid personality of UD versus psychiatric patients with different diagnosis and healthy controls (Furukawa et al. 1997).

They analysed 140 consecutive first-visit patients, of which 48 patients were diagnosed with a mood disorder (ICD-10) and 84 controls.

Two scales were used: The KS and von Zerssen's F-List.

Quite contrary to expectations, the only statistically significant difference was the lower TM score according to von Zerssen F-List among UD versus the healthy controls. This means that the TM score is different between UD and control but not between UD and other psychiatric patients. According to KS, there was no significant difference between UD and the control group or other psychiatric patients (Furukawa et al. 1997).

Article 5.

The final Japanese study in our review was published in 2000. It concerns the TM and the Temperament and Character Inventory (TCI) personality in 131 outpatients with UD (DSM-IV) versus 154 controls. (Kimura et al. 2000)

This review focuses on the relationship identified between TM and UD, therefore any mention of the relationship between TCI personality and major depression has been excluded.

This time, the TM was measured by the rigidity subscale of the Munich Personality Test (MPT). The MPT is a test of 51 items evaluating eight central dimensions: rigidity, extraversion, neuroticism, frustration tolerance, isolation tendency, esoteric tendencies, orientation towards social norms and motivation - rated on a 4 point scale from 0 to 3 (Mundt et al. 1997).

The patients scored significantly higher on rigidity: for the Depression group, the mean score on the MPT was 10.82 ± 4.81 , for the control group the mean score was 8.03 ± 4.18 .

Article 6.

On the subject of the MPT, Mundt et al. published a study in 1997 to test other subscales of the MPT, among other things (Mundt et al. 1997).

They studied a sample of 50 UD inpatients (according to the ICD-9) with two principal aims: the first was to determine the prevalence of TM in UD inpatients and the second was to test which subscales of personality inventories would be able to separate TM and NTM (depressives) (Mundt et al. 1997). The second one is off-topic. Categorisation of TM versus NTM was carried out by two clinically experienced authors (Mundt et al. 1997).

According to the categorisation of TM versus NTM by two of the authors, 51% of the patients were considered to be TM according to the consonant clinical rating of both raters.

Article 7.

In 2006, Stanghellini & Bertelli made a new questionnaire based on the four main characteristics of TM: The Criteria for Typus Melancholicus (CTM) (Stanghellini & Bertelli 2006). For each characteristic, the rater attributes one of two possible scores: 0 (absence of the characteristic) and 1 (presence). Participants were classified as TM if three out of the four CTM were present. The CTM capability was assessed on the basis of the concordance of its score with KS score: Personality features of 115 UD consecutively admitted to two psychiatric facilities were assessed with the CTM and with the KS.

The prevalence of TM obtained in the sample was 69.6%.

The CTM scores were highly concordant with the KS scores (Stanghellini & Bertelli 2006).

Article 8.

In the same year, 2006, Stanghellini, Bertelli and Raballo tried to determine whether certain specific depressive symptoms were prevalent in the depression of the TM (Stanghellini et al. 2006).

The sample was an outpatient population of 116 subjects suffering from a DSM-IV UD. The specific depressive symptoms came from the Association for Methodology and Documentation in Psychiatry (AMDP) system. Eight AMDP items were selected: Feeling of loss of feeling, Lack of Vital Drive, Depressed Mood, Anxiety, Dysphoria, Irritability, Feelings of Guilt and Psychotic Symptoms.

According to the CTM, prevalence of TM in the sample was 69%.

Statistically significant differences in depression-related psychopathological scores were found between TM and NTM: TM had increased levels of “lack of vital drive” and “feelings of guilt” and low scores of irritability and dysphoria (Stanghellini et al. 2006).

Article 9.

Based on the article by Stanghellini et al. in 2006, Englebert et al. published in 2018 a study testing the French version of the CTM (Englebert et al. 2018).

The sample consisted of 20 patients with UD (DSM-IV-TR and DSM-V) and 20 controls. This time, there were four questions per item. Scores greater than 11/16 were considered as TM.

The results show 50% of TM in the unipolar depressive group.

DISCUSSION

The correlation between TM and UD is established, as shown by this literature review.

Limitations

Several limitations must be taken into account when interpreting these results. This particular research was

limited to the relationship between TM and UD. MeSH terms had to be included in article titles and only articles written in English, Italian and French were considered, excluding those in other languages.

Results

Nevertheless, this literature review provides valuable insight:

- Typus Melancholicus is not influenced by age in a population with UD (Sato et al. 1993, Sato et al. 1994). In a population without a history of depression, the score of TM could increase, as a person grows older (Sato et al. 1994). According to Stanghellini and Mundt, this can be explained not only by the fact that personality sclerosis with age but also by taking into account the increased social pressure against conformism of the last decades preceding the publication of this article (Stanghellini & Mundt 1997).
- In a population of UD, TM is neither influenced by sex nor clinical characteristics of depression (Sato et al. 1993). However, early parental loss may play a role in the development of personality attributes as measured by a higher TM score (Sato et al. 1993). It has also been suggested that higher TM scores in UD patients might prevent the manifestation of hypomanic episodes during antidepressant therapy because patients with a higher TM score had no history of previous hypomanic episodes. That being said, the authors of the article, Sato et al., advise caution when considering this relationship, for only a few cases with such a history are featured in this study (Sato et al. 1993).
- A high degree of TM could contribute to the chronicity of depression probably through its rigidity and poor compliance in treatment settings (Nakanishi et al. 1993). The generally accepted idea that patients with a personality of typical “Typus Melancholicus” have a good prognostic might therefore be erroneous (Nakanishi et al. 1993).
- Showing that TM had increased levels of “lack of vital drive” and “feelings of guilt” and low scores in irritability and dysphoria compared to Non-TM, Stanghellini suggests that it could be potentially worthwhile to carry out early differential diagnosis (Stanghellini et al. 2006).

TM is not a Personality Disorder

Two studies tried to shed light on the relationships between TM and maladaptive personality - measured by the TCI scale - (Kimura et al. 2000) and between TM and the Personality Disorders (PD) - measured by the DSM-III-R (Sato et al. 1995). Their results confirm that TM may be a special personality feature and the construct of which cannot be well represented by any TCI scale or any DSM-III-R PD TM. They also confirm that it could nevertheless coexist in some patients (Kimura et al. 2000, Sato et al. 1995).

Vulnerability of the TM

The characteristics of the TM increase vulnerability to specific situations such as career changes and pregnancy: this will be applied to (i) burnout and (ii) postpartum depression.

- (i) The question of the differential diagnosis between burnout and depression in a TM was also proposed by Englebert et al. (2018). Two studies tried to show the relationship between TM and burnout in a population of Japanese nurses (Yamada et al. 2009) and Japanese university athletes (Yamada & Hirose 2009). Unfortunately, the hypothesis was not supported by the results. The authors suggest conducting other studies with different subtypes of burnout.
- (ii) In 2011, Stanghellini and Ambrosini published a pilot study on the potential link between TM and postpartum depression. They extracted 6 clinical vignettes with a postpartum depression from the cases described by Tellenbach in 1959 and then compared them to 6 cases from their own clinical practice. The description of Tellenbach's case vignettes and their clinical cases seem quite similar (Stanghellini & Ambrosini 2011).

Typus Melancholicus could be also involved in a lot of other diseases, as Ambrosini et al. shows in his review of 2011, using the keywords "Typus Melancholicus" and "Premorbid personality vulnerable to depression" (Ambrosini et al. 2011).

TM in healthy people

It would be pertinent to mention that studies have also been done in healthy German (Ueki et al. 2006) and Japanese (Sato et al. 1994) people, showing quite similar results. KS and F-List scores seem to increase with age. A further study with more recent samples and from other countries would be interesting in the future.

Specific treatment

On the subject of more efficient psychiatric care, the discussion of Englebert in (Englebert et al. 2018) about the psychotherapeutic ways to treat a TM with depression sows several promising seeds: they suggest focusing the psychotherapy on the four characteristics of TM. However, they recommend to be careful when targeting these characteristics, because these are an integral part of the subjects and erasing them could remove some adaptive techniques of the individuals. They also suggest adding a systemic approach, including the family unit (Englebert et al. 2018).

If some interesting leads are suggested, it could be useful to develop some specific psychotherapeutic aims to deal with their characteristics.

The practical interest of TM could lie in the early detection of first degree patients' relatives and other pre-depressives subjects to lead to better and more efficient psychiatric care (Stanghellini et al. 2006) or to predict new episodes (Englebert et al. 2018).

CONCLUSIONS

The concept of Typus Melancholicus is a personality structure with four criteria stable in time: Orderliness, Conscientiousness, Hyper/Heteronomia and Intolerance to ambiguity (Stanghellini & Mundt 1997, Ambrosini & Stanghellini 2006, Englebert et al. 2018). It describes the premorbid personality vulnerable to UD. It has been proven to be linked to UD (Stanghellini et al. 2006). Our literature review supports this hypothesis.

The literature review also shows that, in a population of UD, TM is always constant regardless of age (Sato et al. 1993, 1994) or sex (Sato et al. 1993), has no relationship to clinical characteristics (Sato et al. 1993) and could contribute to the chronicity of depression (Nakanishi et al. 1993). The TM with depression has increased levels of "lack of vital drive" and "feelings of guilt" and low scores in irritability and dysphoria compared to NTM (Stanghellini et al. 2006).

TM does not seem to be linked to a particular PD or maladaptive personality, but the two may coexist in certain circumstances (Kimura et al. 2000, Sato et al. 1995).

A few studies have been done to determine the prevalence in healthy Germans (Ueki et al. 2006) and healthy Japanese (Sato et al. 1994), so it would be interesting to test it in our countries and in our times.

Furthermore, it has been suggested that specific psychotherapeutic methods can be used to treat TM with UD dealing with their characteristics (Englebert et al. 2018).

Lastly, TM is involved inter alia with Burnout (Englebert et al. 2018) and Postpartum Depression (Stanghellini & Ambrosini 2011): we believe further studies should be made in this direction both for the early detection of people at risk and for adapting patient management to their characteristics (Stanghellini & Ambrosini 2011, Englebert et al. 2018).

Several studies should be carried out to better understand Typus Melancholicus, its implications and its applications in the future.

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Contribution of individual authors:

Emilie Oudart composed the literature review and wrote the first draft of the manuscript.

Catherine Hanak & Sarah Ammendola mentored Dr. Oudart and reviewed the manuscript.

This publication has been approved by all authors as well by responsible authorities where the work was carried out. The authors declare that the work described has not been published before and that it is not under consideration for publication anywhere else.

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Correspondence:

Emilie Oudart, MD, PhD

Université Libre de Bruxelles, Psychosomatics Unit, Centre Hospitalier Universitaire Brugmann

4 Place Van Gehuchten, 1020 Brussels, Belgium

E-mail: emilieoudart@gmail.com