PSYCHOTERAPIA 2 (185) 2018
pages: 89–105

Wiesław Sikorski

THE IMPORTANCE OF THE PROXEMIC ENVIRONMENT IN PSYCHOTHERAPY. NEUROBIOLOGICAL PREMISES

Laboratory of Applied Neuropedagogy, Institute of Pedagogical Sciences, Opole University

physical distance
decor of the therapeutic room
arrangement of seats at tables of different shapes

Summary

The publication attempts to determine the impact of various elements of proxemics (physical environment) on the course of psychotherapy, especially on the communication between the therapist and the patient. The focus is primarily on such dimensions of proxemics as the physical distance, the decor of the therapeutic room and the arrangement of seats at tables of different shapes. The author justifies the need to show greater care for proxemic communication in a therapeutic relationship based on the latest knowledge in the field of neurobiology. The author presents ways of creating and monitoring ("mapping") the physical environment of the office or rooms for conducting psychotherapy, as well as hospital rooms in terms of improving the patients' well-being and greater effectiveness of mutual communication between the therapist and the patient. The final part of the publication contains a characterization of the importance of the arrangement of seats for the course of group psychotherapy. The author presents the advantages of holding such a type of meetings in a therapeutic circle – with chairs forming a circle and a small round a table in the center. The author suggests that such a seating layout allows to determine an informal structure of the therapeutic group, especially group roles taking shape in the second phase of the group dynamics development, namely "confrontation and exploration of differences".

Introduction

One of the vital factors that condition an effective course of communication between the therapist and the patient and – as a result – greater effectiveness of therapeutic influence, is the so-called proxemic environment. It covers territorialism (including *crowding* – the psychical feeling of restricted personal space and *congestion* – the real disposing of a small physical space), the physical distance which parties entering into communication keep, spatial orientation of their bodies towards each other, as well as arrangement of the space of a therapy room or another place designed for conducting therapy.

Enriched physical environment

At the turn of the 1950s and the 1960s, Mark Rosenzweig [1] proved plasticity of the brain in rats. He discovered that the rodents remaining in a cage with ladders, toys, tunnels and running wheels – which he referred to as "enriched" environment – behaved far more functionally while doing labyrinth (maze) test than those staying in sterile cages or in a "poorer" environment. In that research, the rodents coming from the richer environment had clearly larger and structurally better developed brains. Succeeding research confirmed Rosenzweig's discoveries [see 2-5].

Perception of space and the brain

Russell Epstein et al. [6] have made the establishment that in subjects under examination, while they were looking at different elements of the physical environment, a very remarkable excitation of parahippocampal place area (PPA) in their brain was observed. The subjects were shown photos of furnished rooms, differently looking streets, cities, and landscapes. The authors of this research claim that the above-mentioned area of the brain is responsible for associating perceptive information with earlier spatial experience. This information is registered in the cognitive map of the brain. The latest methods of neuroimaging make it possible to obtain a higher level of objectivism since physiological, emotional and sensual reactions are recorded by relevant devices. Thanks to this, one can also acquire data from sick people, patients with dysfunctions or dementia, who are not capable of consciously passing information on their own health condition.

Neuroarchitecture

The current state of neurobiological knowledge has contributed to the development of the so-called neuroarchitecture, which deals with searching for dependencies between physical environment and working of the brain. This concerns, in particular, arranging the surrounding environment, simultaneously taking reactions of the nervous system into account. This movement has been appreciated by the World Health Organization which – relying on relevant studies – has confirmed the great significance of designing the physical environment for the improvement of health and natural environment. There follow explicit conclusions from the research, indicating that there exists a dire necessity to make changes in this sphere, and more precisely – in designing cities, buildings or rooms, bearing in mind human beings' health, their good frame of mind and personal development. It is health that should make the most important element in neurodesigning the physical environment. Such a salutogenetic approach, that is one that appreciates pro-health assets of a friendly proxemic environment, requires the cooperation of neurobiologists, physicians, psychologists, physiologists, philosophers, sociologists, ethnographers, engineers and many other professionals. It is not until the interdisciplinary approach is duly assumed that designing and arranging the physical environment will take into consideration a wide variety of men's needs to a much greater extent and – in consequence – their psychic health will benefit.

Bernard M. Maarsingh – a Dutch clinical psychologist, psychotherapist, and coach – lists three features connecting us as human beings. The first one results from the fact that we are not lonely islands, we are not created to act single-handed – we discuss, consume meals, make sex, admire landscapes – in the company of other humans or with others. Despite the fact that we wish to have moments of solitude, generally, we want to be with somebody. The second quality is our longing for longevity. The third one points to the infectiousness of our behaviors, especially emotional harmonizing and emphatic reacting. People constantly influence one another. As neurobiologists managed to find out, this results from the

activity of the mirror neurons and the plasticity of the brain (neurogenesis and synaptogenesis) on each of the levels, beginning with the neurobiochemical one and ending up with the vast areas of the cerebrum. Under the influence of such experiences, the human brain is constantly changing. The proxemic environment impacts human beings in a similar way [7].

It is for this reason that while neurodesigning the physical space of a therapy room or hospital wards in psychiatric departments, one should take into account cognitive, sensorial, motorial and perceptive functions. The sustainable designing of interiors and objects understood in this way is expected to cause the materials used and arrangement solutions not to disturb, or indeed – on the contrary – to be beneficial to patients, therapists, and physicians. Kristina Sahlqvist – an interior designer and research worker at the University of Göteborg – is the author of the interdisciplinary architectural design of the Swedish hospital in Sahlgrenska. By engaging not only interior designers and architects but also physicians, psychologists, acousticians, musicians and experts on cognitive theories, she has made changes in the arrangement of hospital wards. The changes were aimed at transforming the rigid, cold and too formal hospital space into a physical environment resembling the interior of home. The latest word in technology, like intelligent materials and integral heating systems (based on the use of solar power), have been used. Patients have achieved comfortable conditions created to freely move within the space of the hospital, including consumption of meals jointly with their families. The new arrangement has led to the enrichment of the patients' proxemic environment and – at the same time – to multi-sensual spatial stimulation. The changes indeed contributed to an evident improvement in the wellbeing of all patients and in consequence – to improvement in their health conditions [7].

The physical environment of therapy

It can be concluded from the considerations to date that thanks to the plasticity of the brain it is possible to increase the effectiveness of therapeutic actions through creating a friendly physical environment in the therapy room. At the same time, this points to the necessity of purposeful, well-thought-over and proper arranging and equipping the place designed for working with patients. Such rooms should be furnished with comfortable seating places (e.g. upholstered chairs with armrests or armchairs) for the therapist and patients; the chairs should not be placed on the opposite sides of the desk, table or any other separating piece of furniture, though. They can stand conveniently at a small casual table. Moreover, a place used for psychotherapy needs to be well ventilated or air-conditioned, kept at an appropriate temperature, with the light toned down – neither too dark nor too bright. If a child is to be the patient, then it is worth taking care of additional equipment in the room, that is a good number of toys and also drawing materials or other painting implements appropriate for their age [8].

Spatial zones in therapy

It turns out that for the course of psychotherapy to be effective, zones of physical distance, which make an extremely important element of proxemics, are crucial. They are distances that the clinician should keep while working with patients. Table 1 shows examples of the therapist's behavior towards the patient, which take into account – following E.T. Hall – four types of physical distance and distances corresponding to them – the close and far phases.

Table 1. **Therapist's behavior at different physical distances typical of Hall's four spatial zones**

Type of physical distance	The therapist's behavior towards the patient
Public distance (close phase from 3.6 m to 7.5 m; far phase from 7.5 m until the limit of seeing and hearing)	The therapist's relation with the patient begins with this distance. The former makes eye contact with the latter, introduces himself/herself, informs the patient about his/her competences (the therapist's certificate held) and establishes how the patient is expected to address him/her; the therapist also sends appropriate paraligual items of information (e.g. he/she smiles).
Social distance (close phase from 1.2 m to 2.1 m; far phase from 2.1 m to 3.6 m)	Within this zone there follows further formation of therapeutic relations. The therapist talks to the patient, touching general subjects, which is to serve the purpose of obtaining initial information about the latter and his/her problems.
Personal distance (close phase from 45 cm to 75 cm; far phase from 75 cm to 1.2 m)	Within this zone, there starts the full process of therapy. The therapist talks to the patient about subjects connected with the illness and the difficulties faced by the latter. The former takes care not to cross the borders of the personal space of the latter.
Intimate distance (close phase from 0 to 15 cm; far phase from 16 cm to 45 cm)	Within this zone, the therapist – having obtained the patient's consent – makes use of the contact by touching. This concerns, in particular, application of the so-called body-oriented therapy. It is admissible to support the patient with touching, and speaking precisely – holding the latter's hand at the moment(s) of going through strong emotions. The therapist should always inform the patient about his/her intention to touch the latter prior to the act with the aim to obtain their consent. In other circumstances, moving within this zone using the therapeutic relationship is forbidden.

Source: Author's own elaboration

Hall [9] proposes to use close phases of the four physical distances in contacts with acquaintances or while socializing, whereas during more official meetings – rely on the far phases. The specifics of psychotherapy seems to require close phases which favor greater closeness and openness.

The communication function of the micro-environment

Many therapists take great care of proper furnishing of their offices. Robert Sommer [10] claims that the very removal of the desk – a peculiar symbol of a barricade – makes the patient feel five times more comfortable during their visit at the therapist's. The same researcher found out also that re-designing the hospital ward designed for convalescents evidently improved the mutual relations between the patients. Prior to the alteration, the chairs had been arranged in a row along the walls. In compliance with the new design, the seating places were placed around tables of small sizes so that the patients could

make contacts with each other at a comfortable distance. It turned out that the frequency of talks between the patients grew to be twice higher.

Arrangement of seating places

The placement of the therapist and the patient at a table or desk is of great significance to the course of the therapeutic dialogue, with the assumption that the talk between them can be run at an item of furniture with a rectangular, square or round top. Still, it is a table or a desk with a rectangular top which are used for this purpose most often. Among many possible arrangements of seating at items of furniture of this kind, the most favorable is placing the both "across a corner of the table" (see Figure 1).

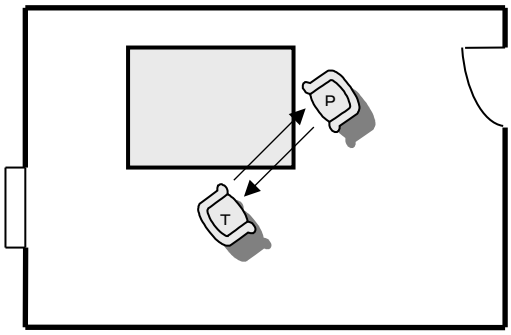

Figure 1. **Placement of the therapist (T) and the patient (P) "across a corner of the table" during the therapeutic dialog** (source: author's own elaboration, based on: Sztejnberg A, Jasiński TL. *Doskonalenie pracy pielęgniarskiej. Edukacja, kompetencje, komunikacja, jakość*. Płock: Wydawnictwo Naukowe; 201, p. 138)

Such a seating of the interested persons favors conducting a talk. Natural light reaches the therapist from the window on the left. The patient can fairly clearly follow the facial expressions of the therapist who, in turn, can also freely read the patient's face and observe the latter's non-verbal behavior. In the figure shown above, the table is placed close to the wall, which causes it not to remove any physical barrier separating the private zone of the therapist from the public one in which the patient finds himself/herself. The therapist (T) is seated in a way that he/she has the door at the side, while the patient (P) is seated with the door behind him/her.

A definitely less favorable layout is with the seatings arranged "aslant across the table" (see Figure 2).

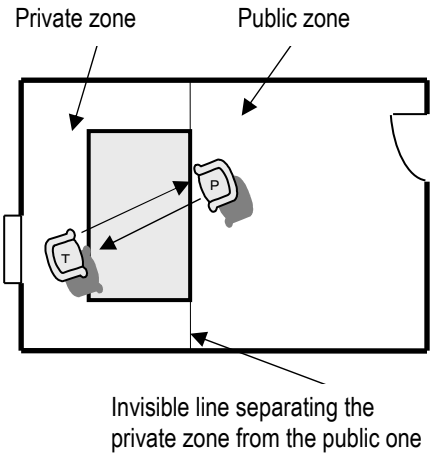

Figure 2. **Placement of the therapist (T) and the patient (P) "aslant across the table" during the therapeutic dialog** (source: author's own elaboration, based on: Sztejnberg A, Jasiński TL. *Doskonalenie pracy pielęgniarskiej. Edukacja, kompetencje, komunikacja, jakość*. Płock: Wydawnictwo Naukowe; 201, p. 138

In the above-shown layout, the rectangular table poses a barrier that is open on both ends. The therapist (T) is seated diagonally across the table, facing the patient (P).

Spatial behaviors in diads

Undoubtedly, the arrangement of seating of the therapist and the patient, which is shown in Fig. 1 is better for the course of the therapeutic dialogue. The bodies of the involved persons are placed in the space at the right angle. Such a seating during a talk favors a free exchange of opinions and mutual non-verbal communication. This is also confirmed by experiments dealing with spatial behaviors in diads, that is groups consisting of two people, which were conducted by R. Sommer towards the end of the 1960s.

The area of one of them was a hospital café, equipped with rectangular tables (90 cm x 180 cm), designed to seat six people, which offered the possibility of six different mutual placements of the people sitting at them, that is: across a corner of the table (A), across the table (B), side-by-side (C), from one end of the table to the other (D), diagonally across the table (E) and aslant along the table (F).

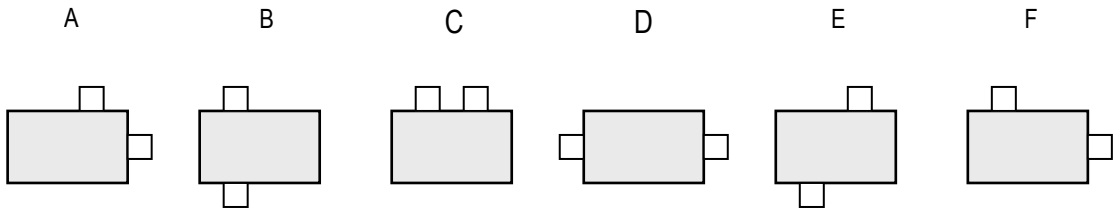

Figure 3. **Six different placements of pairs of people while talking (spatial orientation of people's bodies) at rectangular tables** (source: author's own elaboration, based on: Hall ET. *Ukryty wymiar*. Warszawa: Warszawskie Wydawnictwo Literackie MUZA SA; 2005, p. 140)

In the course of fifty observations, R. Sommer counted discussions carried out at the tables at regular intervals. He noted that the conversations led "across the corner of the table" (A) were twice as

frequent as those between the subjects seated "side-by-side" (C), while the exchange of opinions while sitting "side-by-side" occurred three times more frequently than the discussions "across the table" (B). He also noticed that while the subjects were seated "across a corner of the table" (A), there were six times more conversations led by them than while being seated "across the table" (B) and twice as many as those carried out in the arrangement of "side-by-side" (C). At the same time, it was possible to record that as regards the remaining three placements at the rectangular tables (D, E, F) no conversations were started at all [10].

It follows from the interviews conducted by the author of this paper with 106 psychotherapists in three provinces in Poland, namely in the Voivodeships of Lower Silesia, Opole, and Silesia, in 2008, that the majority of them (66%) preferred the seating arrangement "across the table" (arrangement BC). Far fewer of them (21%) were inclined to seat the patient "across the corner of the table" (arrangement AB), whereas the fewest of the respondents (8%) preferred sitting "side-by-side" with the patient (arrangement BD) or "aslant across the table" (5%) (arrangement BE). Further analyses allowed establishing that most (56%) of the psychotherapists who had chosen places limiting mutual communication, preferred the arrangement "aslant across the table" (BE) and slightly rarer (44%) that of "across the table" (BC). All the arrangements are clearly presented in Figure 4 below.

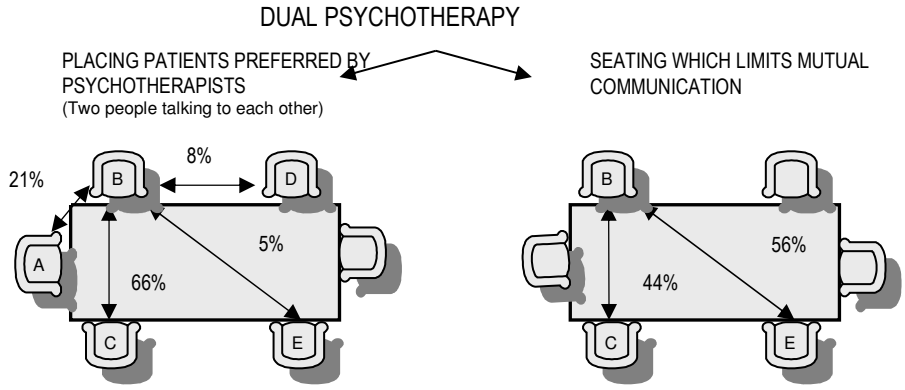

Figure 4. **Arrangements of the seating places preferred by psychotherapists** (source: author's own elaboration)

The left side of the figure illustrates the choices of seating places made by all the psychotherapists who took part in the survey. On the right side, the percentages of the psychotherapists who were inclined to talk to their patients across the table are given.

Round tables

It is quite less often that tables with round tops are used in therapeutic rooms, but – it turns out – they bring a good number of benefits in favor of a free conversation. One of them is that round tables offer many variations of effective taking seats at them while running diads. This fact is confirmed by the

results of the experiment carried out by Sommer [18]. Similarly, the author of this paper showed a diagram featuring a round table with six armchairs to 106 psychotherapists. The task consisted in their indicating the seating place which they usually chose to take during the talks with patients.

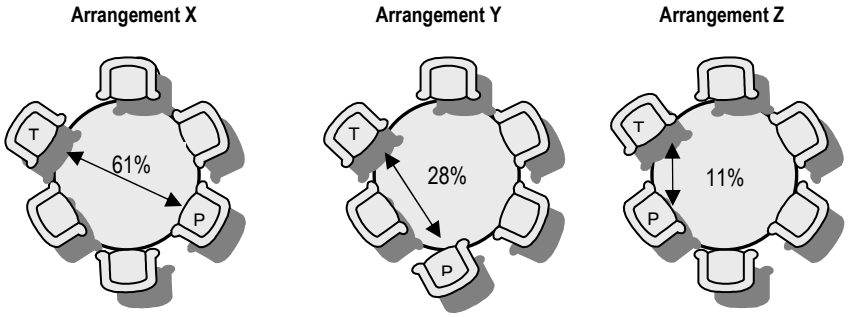

Figure 5. **Arrangements of the seating places at a round table preferred by psychotherapists while talking to the patient** (source: author's own elaboration, based on: Sommer R. Personal space. The behavioral basis of design. New Jersey: Prentice-Hall, Inc., Englewood Cliffs; 1969, p. 63)

It turned out that the greatest number of psychotherapists preferred arrangement X "opposite each other" (61%), then arrangement Y "aslant" (28%) and decidedly the fewest that of Z "next to each other" (11%) (see Figure 5 above). This means, at the same time, that the majority of therapists prefer the placement "straight opposite each other", which denotes confrontation or competition, nearly less than half of those – the seating "aslant opposite each other", which offers freedom and opens space for a mutual dialogue; still fewer of the psychotherapists prefer to be seated "next to each other", which is the best arrangement in favor of cooperation.

Territorial behaviors

Another important element of proxemics are territorial behaviors. They are demonstrated in the given environment, on the so-called territory. The literature defines it as a place "belonging to one or a larger number of subjects and controlled by the subject or the subjects" [11, p. 346].

Irvin Altman distinguished three types of territories: primary, secondary and public. The primary territory (in other words: personal) is, for instance, the person's apartment in a block. It is treated by all the residents as belonging to them, in opposition to the secondary territory, for instance, a therapy room, which is not the property of the therapist, in the same way as a ward in a hospital, which is designed for holding psychotherapy meetings. Each therapist is treated by the other workers as one of the many who have access to the room and the right to use it. In turn, the public territory is a place or an area which is not our property and over which we cannot have control. Each person using this territory is perceived by others as one of the many users with equal rights. In other words, a human has full control over the primary territory and violation of its borders can result in given sanctions. It is possible to stay on the

secondary territory in compliance with accepted rules when one is a legitimate user of it. On the other hand, the possibility of keeping the public territory for oneself is hardly possible [11, 13].

Duncan Joiner [14] claims that in order to provide clear characteristics of social interactions occurring in the given space, it is indispensable to take into consideration three of its properties: the occupied place, physical distance, and interior décor, which – if analyzed jointly – determine the territory.

Although Joiner applied the three properties to describe social interactions within office space, they can be successfully transferred onto the ground of the psychotherapist's communicating with the patient within the space designed for running psychotherapy. For this reason, one needs to make full characteristics of social interactions running on the secondary territory, that is – for example – in a therapist's office or a larger room (e.g. in order to perform a psychological drama play). This territory includes the place taken by the psychotherapist (the user of the space) and that taken by the patient who is participating in the psychotherapy. Next, characterizing social interactions on this territory, the physical distance between the two parties – the psychotherapist and the patient – needs to be established. Moreover, it is necessary to make a description of the interior décor of the room in which the psychotherapy is conducted and also to make a presentation of how this environment is organized. In this last case, it needs to be focused on the manner of developing the space with architectonic elements, taking into account the division into hard and soft architecture [15]. The elements of the former in the psychotherapist's office include such features and elements of the physical environment as its shape, walls, doors, and windows. The elements of soft architecture are objects and items that can be moved from place to place without much effort, like a desk, armchairs, or cabinets.

Sickrooms

A sickroom (in other words a room with patients' beds) in a psychiatric ward or a therapeutic institution, in which patients stay, is another type of instance of the secondary territory, called by Wojciech Nyklewicz [16] "social". On the one hand, this is the environment which patients remain in, on the other hand – a place where psychotherapists, psychiatrists, clinical psychologists, nurses and other professionals work.

The characteristics of the social interactions occurring in this territory, taking into account the elements given by Joiner, should begin with locating places occupied by all the people staying there, in particular patients. Then, the spatial distance dividing the psychotherapist from the patient or patients needs to be determined and – finally – a description of the décor of the interior of the room has to be made, taking into consideration also the development of its space with elements of hard and soft architecture [15]. It must be underlined that the ways of behavior presented by a psychotherapist or a psychiatrist on this territory differ depending on the part of the day and circumstances. For instance, they will be different during a morning ward round from those displayed during an evening summarizing of

the day or at the moment of comforting the patient through delicate and, in no way invasive, (ethical) touching. This is where the contact between the psychotherapist and the patient is taking place in the patient's private territory. This territory covers the area near the bed itself, the bed stool or chair and the cabinet [16]. Its main element is the patient's bed which takes the form of the intimate territory.

Mapping

Although pieces of equipment or furnishing (bed, stool, bed cabinet), which patients have at their disposal in the sickroom, are the same, arrangements of the private territory by each of them varies. For this reason, in order to obtain a full picture of social interactions on the given territory, observation techniques are applied.

One of them consists in marking the placement of the furniture and equipment in the given room (mapping the furnishing); the other – in recording patterns of behaviors preferred by the both parties communicating with each other (mapping behaviors). If, for instance, the psychotherapist intends to carry out an observation of the ways of behaving of patients occupying neighboring beds, they should draw a map of this territory and mark the locality of the perceived behaviors, as well as put down their comments in a special observation sheet. The given secondary territory occupied by the patient is of specific kind in the sickroom, different from that in the therapy room or the one in a room designed for running a group therapy. The psychotherapist, having at their disposal the diagram illustrating the space of the given territory, can work out a map which presents patients' behaviors manifesting themselves in different places, both during psychotherapy and outside it. They ought to put the most important elements of equipment in individual rooms on it [15], as well as lines of different shapes, marking routes which the patients move along within the space of these places.

The way space is managed in rooms designed for conducting psychotherapy (an office, a larger hall) or in those where the patients stay (a regular sickroom) communicates a great deal of significant information to a careful observer in a non-verbal manner. Each place of this type can be seen as esthetically pleasant, or – just the opposite – ugly. Their décor and the style they are furnished can evoke favorable or unfavorable impressions in patients, who – as a result – can develop the feeling of very desired calm or that of unwanted harmful anxiety [17]. The kind of furniture and the manner in which it is arranged in these rooms exerts an impact on the relations between the patients and the psychotherapists staying in them. Additionally, these spaces can be described in terms of behaviors acknowledged to be favorable and beneficial to achieving goals connected with the places [18]. This is confirmed, among others, by the results of the research by R. Sommer. The aim of the research was to improve the conversation-friendly atmosphere in hospital wards of a newly-established geriatric department for women. Observations of the patients' behaviors proved that the longer they were staying there, the less willing they were to talk. Their behaviors in particular rooms of that ward were very similar: usually, they

were sitting close to the walls of the rooms at the same distances between the beds. They clearly evaded conversing and gave the impression of being depressed and discouraged. The major territorial elements that were used by those patients were the bed and the chair assigned to them. Sommer concluded that, in order to create an additional territory for each of them, it was necessary to equip the rooms with extra tables with square tops. The administration of the ward accepted his suggestions and purchased such small tables accordingly. Putting in the small tables and placing the chairs around them increased the intensity of talks between the patients. Precisely speaking, it was found that the number of interactions doubled [9].

Proxemics of a therapeutic group

An appropriately selected and organized proxemic environment seems to be of great importance to an effective course of group therapies. The room designed for conducting a group therapy should not be too large, preferably of regular shape and giving the impression of being cozy and warm thanks to suitable lighting, furnishing and being equipped with the most necessary items of furniture and subtle decoration of the walls. Before starting each session, armchairs of the same type should be arranged around a regular, not very tight circle, which allows free taking seats or leaving the place. A small round table should be placed in the center (see Figure 6).

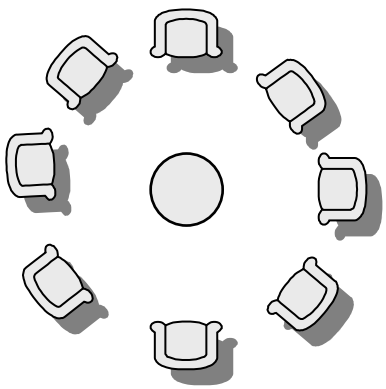

Figure 6. **A therapeutic circle with a small round table in the center** (source: author's own elaboration, based on: Foulkes SH. *Group-analytic psychotherapy*. New York: Interface; 1975, p. 81)

The small table performs a very important function of the "symbolic center" which can easily be focused on and creates a sense of a friendly environment. On the other hand, a table which is larger in size could create an atmosphere of a formal meeting or a party. From the point of view of group processes, resigning from using a table at all is more beneficial to an effective group therapy than carrying out a therapy session in a cramped room with a large table inside. The armchairs should be comfortable in the same way, simple and easy to move; at the same time, they cannot be too soft, as this would make the patients lazy, incline them to remain passive or limit their involvement. Their number

ought to correspond to the number of expected members of a given therapeutic group: should, for some reason, one of them drop out, his/her armchair should be left vacant. Being seated around a circle strengthens the sense of equality of all the participants and favors free observation of one another, which is possible thanks to a good eye contact and sitting "face-to-face".

If the armchairs are arranged around a circle in a tighter way, the participants may feel forced to develop closer contacts between one another. In turn, if the patients make the circle tighter themselves, they communicate their need to be closer with one another, the feeling of safety or sometimes their wish to exclude someone, etc.

The circle should be composed of 7 armchairs. As it follows from studies on the range of attention (direct attention), seven is the number of patients, which offers the best opportunities for the therapist to monitor each patient individually and the group as a whole. Groups numbering 7 members are recommended by I. Yalom [19], among others. In smaller groups (6 or 5 participants), the number of possible interactions going on between the fellow-patients is a lot lower. However, in compliance with the recommendation to form groups comprised of an even number of participants (e.g., in order to even the composition of the group as regards its members' sexes, ages, or diagnosed problems or create a structure based on the principle of "Noah's Ark", i.e., to have two divorced participants against two married ones, two older participants against two younger ones, two people with stress disorder against two patients with adaptative disorder, and the like) [20], it seems optimal to form a circle consisting of 8 armchairs. This, additionally, prevents running sessions with groups which are too small as a result of unexpected absences of the participants, their pre-mature finishing of the therapy or dropping out. Formation of this type of mixed (heterogenic-homogenic) groups is justified also by the fact that the participation of pairs of patients with a similar problem favors a more effective running of the initial phase of psychotherapy than that possible to execute in a group of completely varied character (heterogenic). In the case of the latter, the conditions to make the initial identification of the group members, to set common goals for the group or dynamize the integration process are far less favorable. Furthermore, groups based on the "Noah's Ark" principle can serve the purpose of cohesion of the group to a much greater extent, which is considered to be one of the more significant non-specific curing factors [21]. The work with such groups is also therapeutically more effective than with purely homogeneous ones, since they are comparatively more varied and "richer" in terms of quantity and quality of interactions. Their exceptionality results from connecting values of heterogeneously and homogeneously organized groups.

The particular places taken in the circle (the armchairs along with their spatial arrangement) by individual members of the group and their accompanying behaviors are also of significance. According to the principles of proxemics, the order of taking seats exerts a strong impact on the formation of relations within the group. Choosing the right armchair, changing it for another or the distance kept from the therapist can be the subject of analyses and interpretation of various processes occurring in the group and

– later on – can offer valuable material to apply relevant therapeutic interventions.

The therapist usually sits in the same armchair, in this way communicating a certain stability, the lasting character and continuity of the whole therapy. They also ought to be punctual. Still, it can happen that one of the patients appears early and occupies the therapist's seat, which is an important piece of information both to the therapist responsible for the therapy and to the other members of the group. Taking a seat next to the therapist is interpreted as a sign of staying close, dependence, intention to be favored by the therapist or even to hide from the latter. This is visible especially in the second stage of the therapeutic group's development – the one of "confrontation and exploration of differences". It is quite often then that the patients who perform the role of "mouthpiece of the group" – voicing its moods, being a peculiar "conscience of the group", "group's child" (in particular, "poor child") and "good mom" ("dear uncle") choose to take seats possibly standing the closest to that of the therapist. Patients who choose to sit in the armchairs opposite the therapist during this phase can demonstrate – through their spatial placement – a defensive attitude, a kind of opposition or the need for being noticed and distinguished. Accordingly, these seats are most often taken by people who are "dissentients", "group bards", "stabilizers of the group's emotions" or "mad children".

The decisive majority (71.3%) of the 106 psychotherapists whom the author of this paper interviewed on the preferred layout of armchairs or chairs during a group therapy admitted that they used the system of a closed circle or one in the shape of the letter "U" or a horseshoe. The remaining (28.7%), on the other hand, declared that they decided to seat their patients at a rectangular (conference-type) table. Furthermore, it follows from the author's observations that choosing places to sit down by members of the group at such a table can point to the roles performed by them, especially at the first stage of the group's development ("orientation and dependence"). Moreover, it depends on the place which the given patient occupies, to a great extent, how they will be visually available to other group members and – in consequence – successful in terms of communication, particularly non-verbal communication.

In Figure 7, the places usually taken by leaders ("domination" and "liking") and also by "group jesters" and "good pupils" are marked with black circles. Occupying these seats causes the role-performers to be seen and heard better. Due to the fact that the both leaders, by nature, have something interesting and important to pass on to the group, and because of that they wish to be in the center of attention of the other patients, it is not surprising that they choose to take just the most physically exposed seats.

The positions marked with a black square are neutral and usually preferred by "outsiders", that is patients who intend to go through the meeting without getting engaged in it. On the other hand, "scapegoats" who want to keep in the background or prefer to "blend themselves into the surroundings" typically sit on one of the places marked with the black triangle.

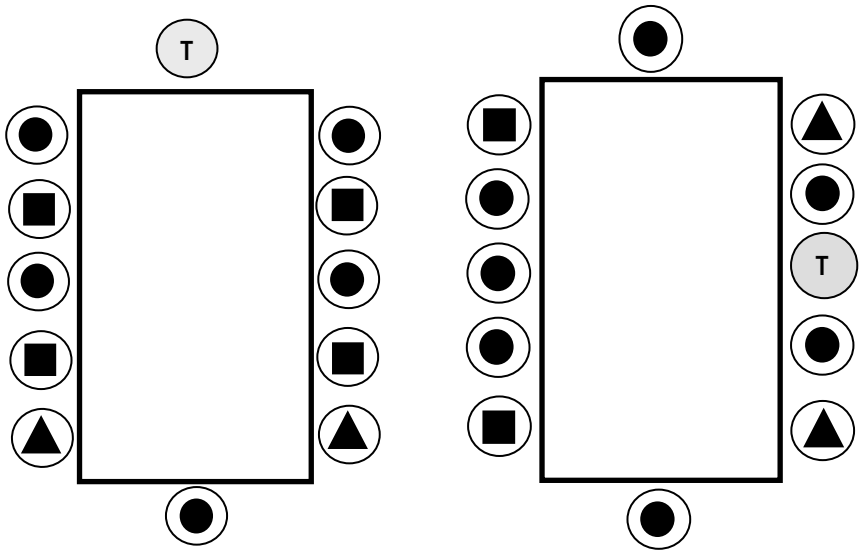

Figure 7. **The best places to get noticed (marked with circles and rectangles) and not to get noticed (marked with triangles) during a session** (source: author's own elaboration)

The head of the table is traditionally the best place for an authoritative therapist (see Figure 8): if he/she wants to accentuate their indisputable authority, for instance, during the first sessions that are meant to motivate the group members to work, they should necessarily sit there. One needs to be careful, however, since occupying this place in the head can result in being perceived as a strict and autocratic person. In consequence, depending on the course of therapy, this move can be counterproductive, causing patients to take a dislike to the therapist or to develop an attitude of disfavor towards them lasting a long time.

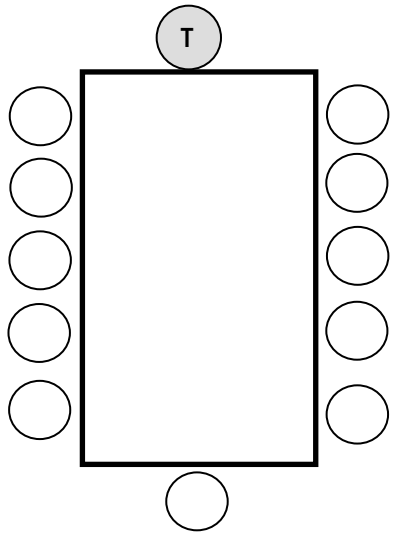

Figure 8. **The head of the table – the best place for an authoritative psychotherapist** (source: author's own elaboration)

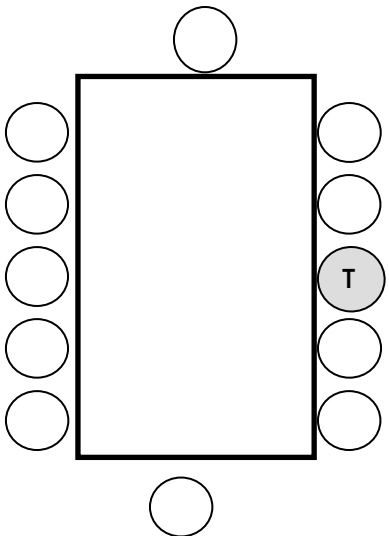

Figure 9. **The middle of the table – the best place for a non-authoritative psychotherapist** (source: author's own elaboration)

On the other hand, the seat at the side in the middle of the table (see Figure 9) should be taken by the therapist if the atmosphere during the meeting is turning tense and can end up in a conflict (e.g., at the phase of confrontation and exploration of differences), and also when it is evident that the group members cannot find a common ground. Taking this seat will contribute to the therapist having a much closer and better relation with each member of the group. For this reason, this very place is often chosen by non-authoritative psychotherapists, since such a seating can bring them closer to the group.

However, they must show a fair deal of consideration and care while doing so: if they are too compromising, they can earn the opinion of being indulgent and weak. It is interesting to note that when members of a therapeutic group were seated in this place (without the possibility of another choice) during an experiment, they often admitted that the more eyes were looking at them, the stronger their feeling that they had to "meet the duties" which this place at the table imposed on them [22].

The places which are selected during a group therapy can also be the basis for forming hypotheses on the kind of transference relationships. Taking an armchair near the door can be used to make a hypothesis on the person's separation, being an outsider or a scapegoat, or can signal the person's intention to leave the group. This can also be a sign of the wish to distance oneself from someone in the group, to change the attitude towards people taking the neighboring seats or even to form sub-groups. Then, usually, such people move their armchairs away, change their arrangement or take seats on the floor outside the circle [23].

Final remarks

Recapitulating, psychotherapy is conducted in places, in spaces, in which therapists and patients enter into interactions. Within them, territories exist which have certain properties, both physical (pieces of equipment, décor of the interior, colors on the walls and the ceiling, lighting, temperature) and spatial (including, among others, the arrangement of the items of furniture in the room and the physical distance between the therapist and the patient staying in the place). The environment of each place, in which a psychotherapy is run, conveys also non-verbal information which is of particular significance, including that of communication and diagnostic value, and – as a result – favorable to a more effective treatment.

The proxemic environment can constitute a beneficial element or one that disturbs the course of psychotherapy. Although it is not deciding about the curative value of psychotherapeutic sessions, it does help create conditions for establishing better interactions between the participants of the therapy – a simultaneous involvement of the therapist and the patient during dual meetings or their greater number in the case of group therapies, when the participants control one another as a result. As far as group psychotherapy is concerned, it can additionally contribute to experimenting and experiencing various social situations in a physically richer environment. The properly arranged physical space of the office or room designed for carrying out psychotherapy, taking care not to invade the patients' intimate zone, as

well as following their territorial behaviors during sessions, can cause the basic therapeutic processes, like getting an insight, working through the problem, transference relations, to run in a safer and friendlier physical environment and to prove more effective.

References

1. Rosenzweig M. Environmental complexity, cerebral change, and behavior. Am. Psychol. 1966; 21: 321–332.
2. Kleim JA. Synaptogenesis and fos expression in the motor cortex of the adult rat after motor skill learning. J. Neurosci. 1996; 16: 4529–4535.
3. Comery TA. Increased density of multiple-head dendritic spines on medium-sized spiny neurons of the striatum in rats reared in a complex environment. Neurobiol. Learn. Memory 1996; 66: 93–96.
4. Federmeier KD, Kleim JA. Learning-induced multiple synapse formation in rat cerebral cortex. Neurosci. Letters 2002; 332: 180–184.
5. Briones TL, Klintsova AY. Greenough WT. Stability of synaptic plasticity in the adult rat visual cortex induced by complex environment exposure. Brain Res. 2004; 1018: 130–135.
6. Epstein R, Harris A, Stanley D, Kanwisher N. The parahippocampal place area: recognition, navigation, or encoding? Neuron; 5/1, 23: 115–125.
7. Witkowska M. Dobrze „urządzić" życie. Świat mózgu 2017; 3: 32–33.
8. Barker P. Metafory w psychoterapii. Gdańsk: GWP;1997.
9. Hall ET. Ukryty wymiar. Warszawa: Warszawskie Wydawnictwo Literackie MUZA SA; 2005.
10. Sommer R. Personal space. The behavioral basis of design. New Jersey: Prentice-Hall, Inc., Englewood Cliffs; 1969.
11. Bell PA, Greene Th, Fisher JD, Baum A. Psychologia środowiskowa. Gdańsk: GWP; 2004.
12. Altman I. The environment and social behavior. Monterey: Brookes/Cole; 1975.
13. Holahan CJ. Environmental psychology. New York: Random House, Inc; 1982.
14. Joiner D. Social ritual and architectural space. W: Proshansky HM, Ittelson WH, Rivlin LG, red. Environmental psychology. People and their physical settings. New York: Holt, Rinehart and Winston; 1976, p. 224–241.
15. Horne Martin S. The classroom environmental and its effects on practice of teachers. J. Environ. Psychol. 2002; 1/2, vol. 22: 139–156.
16. Nyklewicz W. Podstawy teoretyczne procesu komunikowania. W: Kwiatkowska A, Krajewska-Kulak E, Panek W, red. Komunikowanie interpersonalne w pielęgniarstwie. Warszawa: Wydawnictwo Lekarskie PZWL; 2012, p. 86–101.
17. Sztejnberg A, Jasiński TL. Doskonalenie pracy pielęgniarskiej. Edukacja, kompetencje, komunikacja, jakość. Płock: Wydawnictwo Naukowe NOVUM; 2013.
18. Eliasz A. Psychologia ekologiczna. Warszawa, Wydawnictwo Instytutu Psychologii PAN, Warszawa 1993, p. 29–76.
19. Yalom I, Leszcz M. Psychoterapia grupowa. Teoria i praktyka. Kraków: Wyd. Uniwersytetu Jagiellońskiego; 2006.

20. Aleksandrowicz J. Psychoterapia. Podręcznik dla studentów, lekarzy i psychologów. Warszawa: Wydawnictwo Lekarskie PZWL; 2000.
21. Tryjarska B. Organizacja psychoterapii grupowej. W: Grzesiuk L, red. Psychoterapia. Praktyka. Podręcznik akademicki. Warszawa: Eneteia Wyd. Psychologii i Kultury; 2006, p. 21–32.
22. Sikorski W. Komunikacja terapeutyczna. Relacja pozasłowna. Kraków: Impuls; 2013.
23. Foulkes SH. Group-analytic psychotherapy. New York: Interface; 1975.

E-mail address**:** wie.sikorski@gmail.com