

**The scientific path of Jakub Frostig in the light
of his correspondence with the leading representatives
of world psychiatry – from psychoanalysis
and phenomenological approach to biological psychiatry.
Part 2. Towards biological psychiatry**

Filip Marcinowski, Tadeusz Nasierowski

Chair and Department of Psychiatry, Medical University of Warsaw

Summary

In the second part of the article devoted to Jakub Frostig (1896–1959), his research from the 1930s on insulin coma treatment is presented in a broader context. Frostig began his research in the psychiatric hospital Zofiówka in Otwock and continued after his emigration to the United States. Thanks to new sources, we managed to determine the reasons underlying Frostig's departure from Poland. At the end of the 1930s, the issue of emigration became a necessity for him, saving his life and his family. Frostig was well aware of the political atmosphere at the time and the threats that followed. The inability to make a scientific career in Poland was the first impulse to look for a job abroad. After taking over the post of director of Zofiówka in 1933, this factor ceased to be decisive. The feeling of danger born on the wave of European anti-Semitism, especially in Germany, after Hitler came to power, came to the fore. Efforts to obtain a work permit in Switzerland and Australia proved unsuccessful. Eventually, just before the outbreak of World War II, Frostig managed to emigrate to the USA, where he concentrated on popularizing the treatment of psychiatric disorders with insulin comas in the local psychiatric environment. He did not accomplish a scientific career in the USA as he intended. His life story came full circle, and just as in the first years of his professional career in Lviv, he was forced to switch to a private practice. Despite the difficulties mentioned above, Frostig played a significant role in Polish psychiatry and greatly contributed to its development.

Key words: Jakub Frostig, history of psychiatry, insulin coma therapy

Introduction

The publication of a two-volume psychiatry textbook in 1933 established Frostig's position in the Polish psychiatric community and probably facilitated winning the

competition for the position of head of the Hospital for Nervous and Mental Disorders dedicated to Jewish patients in Otwock, bearing the common name Zofiówka, released a year earlier by Rafał Becker (1891-1940) [1].

So Frostig wrote to Binswanger about the offer he received¹:

As you know, until now I was a neurologist in Lviv and I did not have neither an access to literature nor any research material at my disposal. Now I hope to travel more to the West, the more that I came out from the German school. I am offered a directorship position in a semi-private facility for mentally ill people near Warsaw. The institution accommodates 300 beds and is exclusively for the chronically ill. There is no scientific aid, no library; I believe that the reorganisation of the institution will take several years of painstaking work. Of course, then the possibility of going to the West would be excluded for years [2].

Three years later he shared his disappointment because of the limitations his academic career had encountered²:

My textbook has already been published and I have to say that it has found a huge recognition in Polish public opinion. It is currently the only authoritative textbook for university studies in Poland. This was not enough, however, given my background, to gain access to academic teaching. I am currently running a small institution near Warsaw. At the time of the takeover it was a miserable, medieval asylum. I managed, despite strong resistance, to modernise the facility to such an extent that it enables reasonable clinical work as well. The institution is far from what one understands in Switzerland under a "good institution", but it is already arranged in such a way that I can return to my scientific work without remorse [2].

The different profile of Zofiówka patients, most of whom required biological treatment, changed Frostig's scientific interests. In 1935, during scientific trips to Vienna, Frostig became acquainted with the latest achievement in the biological treatment of psychoses, which was the insulin coma treatment. The method was introduced by the Austrian physician Manfred Sakel (1900-1957). He published the first report on this subject in 1933 [3]. Despite fundamental doubts about the presumed mechanism of the therapeutic effect of insulin-induced states of hypoglycaemia and its potentially fatal complications, the enthusiasm of Sakel with the support of Otto Pötzl, the head of Vienna's psychiatric clinic, has contributed to the rapid dissemination of the method in Europe and the world. Within a dozen or so months from the publication of Sakel, the first experiments with insulin coma therapy were carried out in the majority of European countries, including Poland. Polish physicians contributed significantly to research on this method, and the main centres were the psychiatry clinic of the Ste-

¹ Letter from Frostig to Binswanger, Lviv, 23.02.1932.

² Letter from Frostig to Binswanger, Otwock, 09.08.1935.

fan Batory University in Vilnius headed by Maksymilian Rose (1883-1937), and the Zofiówka psychiatric facility managed by Frostig. Undoubtedly, of great importance for the popularisation of Sakel's method in Poland were direct scientific contacts. Polish physicians, including Frostig, visited the clinic in Vienna, and Sakel himself visited Poland several times to present his technique: at the Congress of the Polish Psychiatric Association in Gostynin in 1936 [4], several times in Vilnius [5], and probably in Otwock.

Frostig's contribution to the improvement of the insulin shock method

Frostig presented the first results in the treatment of schizophrenia with insulin comas in the article published in "Rocznik Psychiatryczny" in 1936 [6]. Fascination with the discovery of Sakel did not overshadow the risks associated with it. It is known that in Zofiówka insulin comas were applied with the utmost care. The colourful and somewhat exalted description of Australian psychiatrist Reginald Ellery relates to the experience of his scientific trip around Europe in 1936:

Each of these countries was now using insulin as a stepping stone to further treatment, though in none was it so well organised as at Otwock, in Poland, under Dr. Jacob Frostig, whose results were among the best this author had encountered. Doubtless this was to some extent due to his enthusiasm for the treatment. For Frostig was a true believer. His faith in the treatment admitted no doubt. Each morning he celebrated the high mass of insulin in the wards of his hospital. He imbued his medical officers with an equal faith, so that the medical routine was raised to the status of a ritual. And where faith lives the best results accrue [7, p. 206].

In May 1937, Frostig took an active part in a conference devoted to new methods of treatment in psychiatry, which took place in the Swiss city of Münsingen [8]. A year earlier, he started collaboration with the head of the local clinic, Max Müller (1894-1980). The first letters between these psychiatrists were exchanged in October 1936 [9]. Müller agreed to send a short paper to "Rocznik Psychiatryczny" on the results of treatment with insulin comas³. Just one week later he sent a manuscript⁴. Further correspondence indicates that Frostig had a decisive role in the preparation of a special issue of "Rocznik Psychiatryczny" in 1936, containing almost exclusively articles about the new method of treatment. In addition to the articles by Polish authors, there were articles by Sakel, Dussik and Müller, translated into Polish by Frostig, who belonged to the editorial committee [10-12].

The technical and methodological remarks exchanged between Frostig and Müller constituted a larger part of their correspondence. In December 1936, Frostig, in a letter to Müller, reported that after a one-month stay in Vienna, he intended to prepare

³ Letter from Müller to Frostig, Münsingen, 12.10.1936.

⁴ Letter from Müller to Frostig, Münsingen, 17.10.1936.

guidelines for the treatment with insulin comas that would reconcile the methodological discrepancies between the Viennese and Swiss centres⁵:

Although I agree with you that systematising therapy during studies still in the initial state would not be beneficial, I felt it was advisable to establish a temporary pattern for verification purposes [results]. As outlined in the guidelines, this scheme is only intended to describe any deviations in the methodology from the established standards. We have seen both in Austria and in Poland that on the one hand, the wild experiments with insulin have started, and on the other hand, treatment with the use of low doses of insulin is applied as Sakel's treatment. Thus, the results of the Vilnius clinic resulted from a regrettable misunderstanding of the methodology. I am sending you a copy of the guidelines for inspection, review and comment, and I would be grateful if you would like to send me your comments as soon as possible [9].

Müller welcomed the guidelines drawn up by Frostig (they appeared in print in 1937 [13]), stressing only the role of contraindications to the use of comas, such as coronary artery disease, and the distinction between partial and total improvement⁶.

A large part of the correspondence deals with the conflict with Manfred Sakel. The difficult nature of Sakel, whose behaviour and opinions were determined by psychiatrists who knew him personally as grandiose or even paranoid, was described many times by various authors [14-16]. In a letter from June 1937, Frostig described the incident that occurred at a clinical meeting of Viennese psychiatrists. At that time, a lecture was presented on the cardiazol shock treatment without referring at all to the insulin coma treatment. Frostig presented the results from the conference in Münsingen extensively in the discussion. Then the chairman of the meeting, Otto Marburg, refused to allow Hans Hoff to speak, justifying it with the necessity of another meeting devoted to both insulin and cardiazol treatment. As a consequence, Hoff demonstratively left the room; he also resigned from the membership in the society, in which he was joined by Otto Pözl. Sakel recognized that the whole thing was a "large-scale conspiracy" to discredit the method of insulin coma treatment⁷. Later, he repeatedly formulated similar accusations, refusing the originality of the cardiazol method and suspecting László Meduna, the originator of this method, for the intention to take away his own priority. He claimed that the first experiments on the use of insulin in mental diseases had already been carried out in 1927 and that they were preceded by experimental studies on animals (for which there is no evidence). The culmination of the long-term rivalry between Sakel and Meduna took place during a psychiatric congress in Paris in 1950, when the boastful claims of Sakel, unsupported by any evidence, led Meduna to refuse to shake his hand and submit the text of his lecture for publication.

⁵ Letter from Frostig to Müller, Otwock, 17.12.1936.

⁶ Letter from Müller to Frostig, Münsingen, 23.01.1937.

⁷ Letter from Frostig to Müller, Otwock, 21.06.1937.

Müller, writing to Frostig, referred to the letter Sakel sent to him and to other colleagues⁸:

I really got scared. For what is the challenge of this minor priority? What does this have to do with the background of events in Vienna that you have described to me? I feel that all this is not quite clear, but I am very afraid that Sakel, with his approach and constant suspect of conspiracy and intrigue, with his tactical moves, brings more harm than good, which can even discredit the method. I wrote it openly to him today, but I do not know how much he will benefit, after both you and I talked to him directly in Münsingen about these matters! What else frightened me: Sakel's lecture to the [post-conference] volume, which I got few days ago for correction. In any case, I am very pleased that you will apply corrections, not Sakel. You definitely have to cross out and change a lot.

In response, Frostig expressed a rather critical opinion on the actions of Sakel and the quality of his manuscript⁹:

It is true that the letter of Sakel is not only petty and quarrelsome, but also tactless. The matter is very uncomfortable and will probably worsen the situation unnecessarily. I invited Sakel to Otwock for a few days and will try to speak to his conscience. However, I cannot promise success. I sent the proofreading sheets I received to Braun¹⁰ after a major correction. I had to work hard for a few days to bring the manuscript to an acceptable form. In particular, it was not easy to translate this café-German (Kaffeehausdeutsch) into a scientific language. I managed only to a limited extent. Some phrases were disturbingly silly, such as the phrase "reduction in the regulation of supply" or the claim that an operating but disconnected engine is in a "potential" energy state [...] I do not know if the typesetter will keep up in these countless revisions [9].

Work efforts in Switzerland

From the preserved correspondence of Frostig with Ludwig Binswanger and Max Müller, it appears that Frostig thought about emigration in the early 1930s. In August 1931, he asked Binswanger for references¹¹:

⁸ Letter from Müller to Frostig, Münsingen, 03.07.1937.

⁹ Letter from Frostig to Müller, Otwock, 18.07.1937.

¹⁰ Friedrich Braun (1892-1954), Swiss psychiatrist, director of the Swiss Institute for Epileptics (Schweizerische Anstalt für Epileptische) in Zurich.

¹¹ Letter from Frostig to Binswanger, 27.08.1931.

In the end I have a personal request. I mentioned to you during our short conversation that I have a very good psychotherapeutic practice in Lviv, but I do not have any academic work at all. The city has only a neurological clinic and no psychiatric ward. I do not have access to the literature, equipment, and human material. I help myself by traveling every year to the clinic in Vienna or elsewhere and working there for two months. So it was in Zurich. Only that it is a very uncomfortable way of working. Employment opportunities in Poland would not be much better if I obtained a degree. Now, col. Frey¹² (from the Minkowski clinic) promised me to look around in Swiss institutions for vacancies: he thinks I could find one in Wil¹³. Because I have some private resources and I'm not completely dependent on earnings, this option would be very nice, I could quietly pursue my scientific interests. I allowed myself to ask you, my dear director, for scientific references, and I hope that you will accommodate me [2].

Binswanger's first response to Frostig's request is rather vague ("I will be interested to follow your plans")¹⁴. Further correspondence shows, however, that the head of the Kreuzlingen clinic made some efforts to find a work place for the colleague from Poland. In February 1932, Frostig expresses hope to be granted Swiss citizenship in a short time ("By the way, granting me Swiss citizenship should be possible in a very short time")¹⁵. In March, Binswanger replied¹⁶:

Today I sent the telegram to you that, unfortunately, I did not find a vacancy in Switzerland for you; I just wanted to inform you that there is a possibility, if the position is released, to hire a foreigner. If you are still thinking about Switzerland, I will be tracking job offers in our medical journal.

In our place, after the death of my friend Dr Wenger¹⁷, the position was released. Because this is a purely practical job, which does not leave too much time for academic work, and I need someone from Romandy¹⁸ or France in the first place, you were not taken into consideration [2].

In December 1932, after submitting the manuscript of a textbook, Frostig wrote¹⁹:

¹² Eugen Frey (1894-1973), Swiss neuroanatomist and psychiatrist.

¹³ In Wil, the cantonal psychiatric clinic (Kantonalen Psychiatrischen Klinik Wil) was found, established in 1892.

¹⁴ Letter from Binswanger to Frostig, Kreuzlingen, 05.09.1931.

¹⁵ Letter from Frostig to Binswanger, 23.02.1932.

¹⁶ Letter from Binswanger to Frostig, 05.03.1932.

¹⁷ Ernest Wenger (1888-1932), a Luxembourg psychiatrist.

¹⁸ A French-speaking region in the western part of Switzerland.

¹⁹ Letter from Frostig to Binswanger, Lviv, 20.12.1932.

I was hoping to travel to Switzerland for the Christmas holidays. Unfortunately, the times are too difficult. My plans for transfer are just as good, but they have come to nothing. I do not believe that Switzerland will now tolerate foreigners. It is also leaving quite a secure position at a time when international law and international customs are uncertain [2].

After receiving the position of the head of Zofiówka, the emigration thread disappears from the correspondence of the psychiatrists, followed by a longer break in the exchange of letters – probably partly due to the excess of Frostig's administrative duties, and partly due to a change in the direction of his research. It seems, however, that Frostig did not abandon his plans to leave the country, and worsening of the international situation only intensified his efforts.

At the beginning of July 1937, Frostig and Binswanger exchanged letters after the meeting in Switzerland²⁰:

I always regret that I never have enough time to talk with you about things that interest us. Armoured times are not conducive to spending time in such way. Nevertheless, I hope to come to Switzerland before flying to the other hemisphere and say goodbye to you [2].

In the last of the preserved collection of letters, Binswanger wrote²¹:

I was very happy because of your dear words [...] and I really hope that I will be able to greet you before you go to the another world [2].

Frostig and Binswanger probably did not have the opportunity to meet each other again.

An unsuccessful attempt to emigrate to Australia

During the aforementioned visit of Reginald Ellery in Otwock in 1936, the Australian psychiatrist offered Frostig help in emigration to Australia. He offered similar assistance to László Meduna. Ellery wrote in his autobiography about the fruitless efforts of both European psychiatrists:

Frostig was a Jew and had already sensed the coming trouble; for, like [prophet] Daniel, he could see the writing on the wall, and was prepared to sacrifice anything for an opportunity to practise in Australia. So was Meduna. Both these men indicated this in their personal correspondence with the writer. In Europe they felt trapped. [...] In letter after letter, as the smoke rose from Germany's angry crater, they pleaded for the writer's help to get them into this country. How little they realised this country indifference to their fate!

²⁰ Letter from Frostig to Binswanger, Otwock, 01.07.1937.

²¹ Letter from Binswanger to Frostig, Kreuzlingen, 05.07.1937.

Unsuccessful representations on their behalf were made, but interest was lacking. Their medical degrees were not recognized. [...] They were psychiatrists – but had they been astrologers they could not have been less welcome [7, p. 206].

We find some more details in Frostig's letter to Müller from January 1938²²:

Well, as you already know, I won't go to Australia. As always, the reason is the general and political situation. During Ellery's stay in Europe, 250 European physicians applied for the permission of medical practice only in the state of Victoria. The Australians are frightened by this fact, and the superior medical authority has adopted a regulation which states that only those physicians are permitted to practise who had studied at an Australian university. This regulation was appealed to the administrative court by a Dr Mayer from Leipzig who already had an English doctorate. This action was dismissed, and the regulation was raised to a law by a parliamentary decision. But Ellery doesn't seem to have the necessary connections to provide an exception for me. His suggestion was hasty and thoughtless. So this episode is finished [9].

Emigration to the United States

It is not known whether Frostig's invitation to present the method of treatment with insulin comas at McLean Hospital in Massachusetts was preceded by equally long and arduous efforts. From a letter to Müller in June 1937, it follows that Frostig was sure that he would emigrate to Australia ("I hope I will be able to keep our friendship across the two oceans"), and in July, Müller asked him "when he intends to burn behind him the European bridges"²³.

In April 1938, he wrote to Müller that he received a letter from Sakel and an invitation to America²⁴. The letter from Sakel was "short and sullen", and Frostig had to try for the invitation himself. At the same time, he asked for references and the latest statistical surveys he could present at lectures in the United States. He also asked for an opinion on the combined method of treatment with insulin comas and cardiazol, used in Switzerland by Felix Georgi.

Frostig departed to the United States in May 1938 on board of the passenger ship MS "Batory", then briefly returned to Poland only to leave again in May 1939, this time to Berkeley, California, at the invitation of Aaron Rosanoff (1878-1943), a psychiatrist of Russian descent, director of the State Commission on Lunacy. In California, he received an academic post at the State University.

²² Letter from Frostig to Müller, Gräfenberg, 20.01.1938.

²³ Letter from Frostig to Müller, Otwock, 21.06.1937; Letter from Müller to Frostig, 31.07.1937.

²⁴ Letter from Frostig to Müller, Otwock, 30.04.1938.

In a letter to Müller, he wrote²⁵:

I went to America with mixed feelings. I was not sure if I wanted to stay here or not. The further development of political events in Europe ultimately prompted me to look for employment opportunities here. If I was alone, I would not care much about accidents in the world; but I have a daughter who needs to be looked after. And I have no doubt that she will be happier in the United States than in Europe [9].

Frostig's correspondence rarely referred to the approaching war. However, the situation became increasingly difficult, and anti-Semitism grew in the Third German Reich, which on 12 March 1938, made the Anschluss of Austria. The Austrians turned out to be even more zealous followers of Nazism and their compatriot Hitler than Germans. In this situation Frostig, in a letter to Müller from May 1938, was forced to ask for specific help for the Austrian members of his family. He wrote²⁶:

Now I have another important request. My brother-in-law must leave Austria with his wife. Since my father-in-law's company has been representing Swiss watch factories for decades, they have been exceptionally allowed to stay in Switzerland. My sister-in-law is a pharmacist and wants to get acquainted with laboratory technology, in particular with work related to insulin therapy, since it can be easier to emigrate to America as a laboratory assistant than as a pharmacist. I would be very grateful if you would be so good and give her permission to work for free during her stay with you. If it were not possible, I would be grateful if you would like to intercede for her with Georgi, to whom I turn in the same matter. My sister-in-law's name is Lisl Magid [9].

Upon his arrival in the United States, Frostig began to popularise the insulin coma treatment. In 1938, his guidelines for treatment with this method were published, translated into English by Joseph Wortis, a close associate of Sakel [17]. From the letter to Müller, it appears that Frostig received no support from Sakel after his arrival, and he also complained about the fact of Sakel's interference in the text of the translated guidelines²⁷:

Sakel received me very kindly. However, after a few days it became clear to me that he did not care. In any case, he did nothing to introduce me to psychiatric circles. He brought me together with Sachs and Ross, but he did it in such a way that I feel embarrassed to this day. In general, he had an "amiable-patronising" approach of a "genius" towards me; an attitude that I have not noticed earlier in Europe.

²⁵ Letter from Frostig to Müller, New York, NY, 28.07.1938.

²⁶ Letter from Frostig to Müller, MS Batory, 29.05.1938. Lisl Magid (1909-1990) survived the War and managed to emigrate to Australia.

²⁷ Letter from Frostig to Müller, New York, NY, 28.07.1937.

Another fact is particularly unpleasant. Sakel and Wortis have made many very extensive changes in the "Guidelines" in the English translation; they decided that they would restore the old division into wet and dry shocks and, mocking Meduna, that the aim of treatment is to "generate" epileptic seizures, etc. Comparing both versions, German and English, one [may conclude] that the author is inconsistent or thoughtless. The actual goal of the "Guidelines" to give a short but clear presentation of the results has been completely lost in the English version.

In the USA, Frostig published several papers on the methodology of the insulin coma treatment and its effectiveness [18, 19]. The involvement of the United States in the war, the economic crisis and a number of other factors made the insulin coma treatment lose its popularity. Unfortunately, this affected Frostig's academic career, which can be traced in his correspondence with Adolf Meyer (1866-1950), then one of the most influential psychiatrists in the United States, professor of psychiatry at the Johns Hopkins University in Baltimore [20]. In the first letter Frostig asked for help in publishing his book on the insulin coma treatment²⁸:

The book was read by Dr Bowman and Dr Rosanoff and was approved for the publication by the University of California and the Department of Institution. As a matter of fact, it was already in the hands of the Superintendent of the Printing Office of the State of California, when a change of the political situation caused the Director of Finance to refuse the approval of the appropriation. After my arrival in New York the book was submitted to the Commissioner of Mental Hygiene, Dr Tiffany. It was read by Dr Tiffany, the assistant Commissioner Dr Lang and Dr N.D.C. Lewis and once more approved for publication by the State Hospital Press of New York. Now, Dr Tiffany resigned. A few days ago I have been informed that it will take about one year until the book will find its way into the press. With a lay Commissioner in sight I am afraid that funds may be withheld under the pretext of "necessary wartime economy" or any similar excuse. In the meantime, two years have passed since the monograph was written [23].

In September 1943, Meyer replied that he had recommended the manuscript to Nolan D.C. Lewis (1889-1979) overseeing the Masonic foundation²⁹:

I feel very definitely that your investigations ought to have the support of the Scottish Rites Foundation, which Dr Nolan Lewis supervises. I really would like to forward to him the material with my recommendation. I know, of course, that this fund is most inclined to

²⁸ Letter from Frostig to Meyer, Wingdale, NY, 16.05.1943.

²⁹ Letter from Meyer to Frostig, Baltimore, MD, 29.09.1943.

investigate research, but I believe some of the money ought to be given to support the work already done [...] [23].

Soon after, Frostig reported a series of failures in connection with the publication of the book³⁰:

You may be interested to know that the Committee of the Masonic Fund refused to grant the money for the publication of my monograph in spite of your personal recommendation, and the recommendation of the sub-committee. Incidentally, I did not expect that Dr Lewis would put up a fight for this money and, as you may remember, I wrote to this effect to you. According to Dr Lewis the reason for the refusal was the fact that "the situation with the insulin treatment is now changing rapidly and it may be well on its way to going out of fashion, so it would not be a wise investment". I must confess that for the first time I heard of an opinion where fashionability and marketability were used as the proper criteria for the appraisal of the scientific value of research work. I feel also that it has been unfair to keep the manuscript for one year and to kill the arguments presented in the book purely by silencing it. I would like to add that Dr Bowman made an offer to present the book to the Commonwealth Fund, and I hope that it may have a chance to be published and, perhaps, to revert the trend of dropping this treatment purely by default [23].

In Meyer's materials, there is also his clearly positive recommendation letter to the Chicago Medical Office, which shows that Meyer recommended Frostig as a member of the American Psychiatric Association and that he followed his scientific work since the publication of the monograph on schizophrenic thinking³¹.

The difficult time for insulin coma therapy was just coming. The cause of the trouble was the emergence of a new competitive method of treatment – electroconvulsive therapy. The first news of the discovery of Cerletti and Bini reached Frostig in September 1940. In the last of the preserved letters from Müller to Frostig, the Swiss psychiatrist en passant mentioned the posting of some off-prints from psychiatric journals³²:

Among the off-prints you will probably find interesting the subject of electric shocks; I do not know how far this method is known to you, but I am convinced that soon insulin will be completely displaced, just like cardiazol.

³⁰ Letter from Frostig to Meyer, 01.10.1943. Probably J. Frostig belonged to the Freemasonry. It was to help him achieve his scientific goals. It is known that on 30 January 1932, he joined the "Leopolis" Association in Lviv, belonging to the para-masonic organisation of the Order of the Sons of the Covenant (B'nei B'rith), and in 1932 at one of the lodge meetings he gave a lecture "Some psychiatric problems in marriage" [22, pp. 23, 58].

³¹ Letter from Meyer to M. Burneice Larson, Baltimore, 27.03.1944.

³² Letter from Müller to Frostig, Münsingen, 21.09.1940.

Müller's assumption did not prove to be true, but in the United States the new method quickly grew in popularity. Frostig was not satisfied with the relative simplicity of electric shock treatment and he wrote with bitterness to Meyer³³:

It is my sincere hope that [my] monograph will revert the present trend of abandoning the insulin shock treatment in favour of electroshock. The latter is so much simpler, it interferes so little with the sanctity of ingrained routine, it requires so much less training and it is so much more glamorous with all the flickering tubes, the voltmeters and amperemeters; therefore, everybody who looks for an easy success with minimal effort will rally behind it. In addition, the electroshock has the advantage of being applicable in private offices. I am afraid that all these factors may tend to obscure the truth and to prejudice against the more complicated and more difficult treatment method, even if the results were in favour of the insulin treatment [23].

Eventually, Frostig used electroshocks in his practice, but he dealt with them with incomparably smaller involvement. Frostig's last work concerned electronarcosis and appeared in 1944 [24]. After publishing it, following his previous announcements, he withdrew from scientific life and became dedicated to private practice. It seems that he was already discouraged from the conditions prevailing in the environment of American psychiatrists, and perhaps he was disappointed that he did not recognize the early therapeutic potential of electroconvulsive therapy. Maybe until the end he believed in the superiority of the insulin coma treatment, just like the inventor of this method, Manfred Sakel? Both psychiatrists died relatively young at an interval of two years, not living to see the biological revolution in psychiatry, which was the introduction of antidepressants and antipsychotics; a revolution to which the use of insulin comas in the treatment of mental disorders indirectly contributed.

Timeline of Jakub Frostig's life

To facilitate orientation in the events presented in both parts of the article, we illustrate below the timeline of the most important dates from the biography of Jakub Frostig.

- 25 March 1896 – birth in Belz
- 1906-1914 – education in the VI Stanislaw Staszic Gymnasium in Lviv
- 1914 – studies at the University of Vienna
- 1915-1918 – military service in the Austrian Army
- 1919-1921 – continuation of studies at the University of Vienna
- 1921-1922 – service in the Polish Army, head of the neurological and psychiatric ward of the Military Hospital of the Corps District Command (DOK) District VI in Lviv
- 1921-1923 – further studies in psychiatry in clinics of Vienna

³³ Letter from Frostig to Meyer, 15.12.1943.

1923-1924 – work in the neurological and psychiatric ward of the Clinic Hospital of the Jan Kazimierz University in Lviv

10 July 1924 – diploma nostrification at the Jan Kazimierz University

1929 – publication of the monograph on schizophrenic thinking *Das Schizophrene Denken: Phänomenologische Studien zum Problem der Widersinnigen Sätze*. Leipzig: Georg Thieme

17 October 1929 – marriage with Marianne Bellak in Vienna

June-July 1931 – research travel to Switzerland; visit to the Burghölzli Clinic, meeting with Eugen Bleuler; establishing correspondence with Ludwig Binswanger

1 August 1932 – appointment as the director of the psychiatric hospital “Zofiówka” in Otwock

1933 – publication of psychiatry textbook *Psychjatrja* vol. 1 (part 1-2) and vol. 2 (part 3), Lviv: Wydawnictwo Zakładu Narodowego im. Ossolińskich

1936 – Reginald Ellery’s visit to Otwock; first publication on the insulin coma treatment

October 1936 – establishing correspondence with Max Müller [9]

29-31 May 1937 – participation in the conference of the Swiss Psychiatric Association in Münsingen dedicated to the treatment of schizophrenia [7]

1937 – publication of guidelines for the insulin coma treatment [13]

May 1938 – departure to the United States

1938-1939 – works at Harlem Valley Hospital, Wingdale, New York, at Albany Medical College as a lecturer in psychiatry, research with Harold Edwin Himwich and Tom Douglas Spies

1939-1941 – lecturer and researcher at the Department of Psychiatry of the University of California, introduces insulin coma treatment in California hospitals (Camarillo State Hospital, Patton State Hospital, Stockton State Hospital)

1941-1944 – works at Harlem Valley State Hospital again

1943 – efforts to publish a monograph on the treatment with insulin comas; establishing correspondence with Adolf Meyer [23]

1944 – the last scientific publication by Frostig [24]

1944-1945 – internship at New York Hospital for Joint Diseases

1946-1947 – works at Patton State Hospital

1947 – opens a private practice in Los Angeles

1950s – work at the psychiatric clinic Cedars of Lebanon Hospital, Los Angeles, California; as a lecturer at the College of Medical Evangelists in Loma Linda, California, and as a consultant in the psychology department of the University of Southern California

21 October 1959 – death in Los Angeles, buried in the Forest Lawn Memorial Park cemetery (Glendale, California)

References

1. Marcinowski F, Nasierowski T. *Rafal Becker: psychiatrist, eugenist, Zionist*. Psychiatr. Pol. 2016; 50(1): 261-268.
2. Correspondence of J. Frostig and L. Binswanger, Eberhard Karls Universität Tübingen Universitätsbibliothek, Binswanger-Archiv, signature 443/37-443/44.
3. Sakel M. *Neue Behandlungsart Schizophreniker und verwirrter Erregter*. Wiener Klinische Wochenschrift. 1933; 46: 1372-1373.
4. Witek S. *Pamiętniki 1937-1942*. Biblioteka Narodowa, Magazyn Rękopisów, Rps akc. 11904.
5. Mazurkiewicz J, Mikulski K. *Sprawozdanie z XVI Zjazdu Psychiatrów Polskich w Płocku i Gostyninie 8-10 VI 1935*. Rocznik Psychjatryczny 1935; 23: 207-208.
6. Frostig J, Kister J, Manasson W, Matecki W. *Doświadczenia nad leczeniem insulinowym schizofrenji*. Rocznik Psychjatryczny 1936; 28: 136-156.
7. Ellery R. *The cow jumped over the Moon. Private papers of a psychiatrist*. Melbourne: F.W. Cheshire; 1956.
8. Frostig J. *Erfahrungen mit der Insulintherapie bei schizophrenen unter besonderer Berücksichtigung der klinischen Probleme*. Schweizer Archiv für Neurologie und Psychiatrie 1937; 39(Erg.-H.): 153-157.
9. Correspondence of J. Frostig and M. Müller, Burgerbibliothek Bern, Archiv und Handschriftenbibliothek, Familienarchiv Müller (FA), signature FA 9 and FA 12.
10. Sakel M. *Nowe wyniki leczenia psychoz stanami niedocukrzenia*. Rocznik Psychjatryczny 1936; 28: 1-11.
11. Dussik KT. *Wyniki leczenia schizofrenji wstrząsami insulinowemi metodą dra Sakla w porównaniu z samoistnym przebiegiem choroby*. Rocznik Psychjatryczny 1936; 28: 12-17.
12. Müller M. *Doświadczenia szwajcarskie nad leczeniem wstrząsami insulinowemi*. Rocznik Psychjatryczny 1936; 28: 18-25.
13. Frostig J. *Vorläufige Richtlinien für eine systematische Anwendung der Hypoglykämiebehandlung bei Schizophrenen nach der Methode Dr. Sakel und für eine methodische Beschreibung des Verfahrens und der Ergebnisse*. Wien: Ars medici; 1937.
14. Müller M. *Erinnerungen. Erlebte Psychiatriegeschichte 1920-1960*. Berlin-Heidelberg-New York: Springer-Verlag; 1982.
15. Freeman W. *The psychiatrist: Personalities and patterns*. New York: Grune & Stratton; 1968. pp. 31-39.
16. Shorter E, Healy D. *Shock therapy: A history of electroconvulsive treatment for mental illness*. New Brunswick, NJ: Rutgers University Press; 2007.
17. Frostig J, Wortis J. *Sakel's pharmacologic shock treatment for schizophrenia; Tentative directions and system of recording*. Archives of Neurology and Psychiatry 1938; 39(2): 19-23.
18. Frostig J. *Technique of insulin-shock therapy*. Statistical Report of the Department of Institutions of the State of California; 1939. pp. 2-8.
19. Himwich HE, Frostig JP, Fazekas JF, Haddidian Z. *The mechanism of the symptoms of insulin hypoglycemia*. Am. J. Psychiatry 1939; 96: 371-385.
20. Frostig J. *Clinical observations in the insulin treatment of schizophrenia. Preliminary report*. Am. J. Psychiatry 1940; 96: 1167-1190.
21. Książka adresowa Związku Żydowskich Stowarzyszeń Humanitarnych „B'nei B'rith” w Rzeczypospolitej Polskiej w Krakowie. Krakow; 1932.

22. Sroka Ł.T. *Stowarzyszenie Humanitarne „Leopolis” we Lwowie (1899–1938). Główne kierunki działalności*. *Kwartalnik Historyczny* 2016; 123(1): 45–69.
23. Correspondence of J. Frostig and A. Meyer, Alan Mason Chesney Medical Archives, Adolf Meyer Collection, signature I/1272.
24. Frostig JP, Harreveld A, Reznick S, Tyler D, Wiersna C. *Electronarcosis in animals and in man*. *Archives of Neurology and Psychiatry* 1944; 51(3): 232–242.

Address: Tadeusz Nasierowski
Medical University of Warsaw
Chair and Department of Psychiatry
Nowowiejski Hospital
00-665 Warszawa, Nowowiejska Street 27
e-mail: tadeusz.nasierowski@psych.waw.pl