Part One

Perspectives and methods
Defining social psychiatry is not a simple matter as its concerns and boundaries have altered over the years, as becomes evident by tracing the history of the term. The Royal Medico-Psychological Association (RMPA) had a section of Psychotherapy and Social Psychiatry that was established in 1946. The early meetings of the section focused on social psychiatry, which, although never defined formally, was tacitly assumed to concern the study of social organizations, now considered to be the territory of sociologists, such as Goffman, whose book on asylums was published in 1968 (see Chapter 5). The group, large or small, was viewed as the entity on which social organizations were founded, and the term ‘social’ was used to mean ‘appertaining to a group’. This conceptual framework originated from the experience during World War II of military psychiatrists, of whom the outstanding innovators were Maxwell Jones and Tom Main.

Jones was part of the Maudsley Hospital team at Mill Hill Emergency Hospital, and was in charge of the Effort Syndrome Unit with the remit to investigate the cause of chest pains experienced by soldiers under stress. He began to lecture to large groups of soldiers in the hospital on the origin of their symptoms and soon realized the therapeutic potential of the group itself (The Guardian, Obituary, 29 August 1990). At the same time Tom Main was working on a similar problem. He noted (personal communication, 1973) that the incidence of breakdown was higher in some army units than others, and these breakdowns could be legitimately viewed not only as throwing light on the problems of the sick individual but on the organization to which he belonged (battalion, regiment, etc.). Main studied these units in terms of disciplinary patterns, officer–man relations, welfare, social structure, roles, role-relations and culture, capitalizing on a natural experiment. Assuming that the assignment of soldiers to units was relatively random and knowing that they were exposed to similar levels of combat stress, variations in psychiatric illness rates were very probably due to differences in the social organization of the units.

From the experiences of Jones and Main with group treatment and group structure emerged the concept of the ‘therapeutic community’, which Jones utilized first with returning prisoners of war and then established at Belmont Hospital, Sutton. It was therefore natural to associate social psychiatry with psychotherapy when the section was founded in 1946. Incidentally, when
Jones wrote about his innovatory service in 1952 his book was entitled ‘Social Psychiatry’. In addition to a concern with therapy, the section continued with studies of various organizations, especially hospitals.

In addition to Belmont, other psychiatric hospitals were influenced by the experience of military psychiatrists. In Netley Hospital, which admitted soldiers suffering from psychiatric conditions, the psychiatrists witnessed rapid recovery from serious symptoms once men were removed from the stress of battle conditions. This instilled optimism about recovery, which the psychiatrists brought into the ordinary psychiatric hospitals at the end of the war. While a handful of pioneers, such as Duncan MacMillan, had established outpatient clinics outside the psychiatric hospital before the war, the new-found optimism of the military psychiatrists led to an increase in discharges and a fall in occupied beds, which began in England and Wales in 1954, the year before the introduction of chlorpromazine to clinical psychiatry.

World War II also had an impact on psychiatric care in the United States (US), but for different reasons from the UK. In Britain, conscientious objectors were sent down the mines to extract coal, the so-called ‘Bevin Boys’. In the US they were given the job of orderlies in the psychiatric hospitals. These morally motivated young men brought into the hospitals their humanitarian values, which were at variance with the prevalent practice of custodial care. Their impact was less revolutionary than that of the British military psychiatrists who were put in charge of the hospitals as superintendents. That is one of the reasons why deinstitutionalization has been slower in the US than in the UK.

The RMPA was superseded by the establishment of the Royal College of Psychiatrists in 1971, and two years later a Social and Community Psychiatry Group was set up within the College. Although it lost a nominal connection with psychotherapy, four members of the inaugural Executive Committee were on the staff of the Tavistock Institute of Human Relations and one other was a therapist working with large groups. Furthermore, at the Annual General Meeting of the College in July 1974 the Group organized a session on ‘Prospects in Social and Community Psychiatry’, in which Tom Main was one of the three speakers. His topic was ‘preventive psychiatry’, which requires some explanation.

At the first meeting of the Executive Committee in November 1973, the concerns of the Group were subsumed under three main headings:

1. Promotion of the best possible organization and disposition of community psychiatric services, both within the National Health Service (NHS) and outside it.

2. Development of a liaison with allied groups, such as general practitioners and social workers, and also with similarly relevant groups not directly involved with medical or social work functions such as teachers.

3. Fostering of educational and scientific interests, such as postgraduate training in social psychiatry, studies of social aspects of their treatment, and epidemiological, evaluative and operational inquiries.

It was anticipated that the Group would divide itself naturally into three working parties: the first area of concern would be dealt with under the heading of ‘Services’, the second under ‘Prevention’, and the third under ‘Epidemiology’. In effect these divisions amounted to the recognition of major differences in interest, ideology and practice among the members of the newly established Group and its Executive Committee. The discipline of psychiatric epidemiology was well represented on the Committee by eight members drawn largely from the three Medical Research Council (MRC) Units dealing with that field and the General Practice Research Unit at the Institute of Psychiatry headed by Michael Shepherd. The Committee also included a number of pioneers in the development of community psychiatric services. Although some of these had been involved in research studies, their reputation rested on their entrepreneurial activities in creating innovative services. Their natural affiliation was to the Services working party. The third interest group on the Committee was largely derived from the Tavistock Institute of Human Relations. Its members can be viewed as providing the strongest link with the section for Psychotherapy and Social
Psychiatry in the preceding RMPA. The Executive Committee evidently considered that the Prevention working party was the most appropriate for them to join, since Colin Murray Parkes was appointed as its convener. At the AGM of the College in 1974 each of the three speakers in the session organized by the Group was associated with one of the working parties. John Wing spoke on ‘Epidemiology and research’, Jim Birley on ‘Community services’, and Tom Main on ‘Social and preventive psychiatry’.

The association of the term ‘preventive psychiatry’ with the therapeutic community movement is explained by Hare [1] in his discussion of the relationship between social psychiatry and psychotherapy. He identified two growing points in preventive psychiatry, one of these being group methods of treatment. He viewed these as having close relations with psychotherapy, citing a publication by David Clark [2]. Clark had established a therapeutic community at Fulbourn Hospital, Cambridge, and later became a member of the Social and Community Psychiatry Group. Hare went on to argue that Maxwell Jones’ view of the functions of a therapeutic community broadened from an initial focus on the treatment of established neuroses to include prevention. Hare considered the second growth area in preventive psychiatry to lie in the domain of public health and to be represented by facilities such as hostels and workshops. These were to become the remit of the Services working party of the College Group.

The claim that therapeutic communities, or indeed any other form of psychotherapy, constituted effective prevention was viewed with scepticism by the epidemiologists, since no research evidence was forthcoming. Considerable tension existed between the psychotherapists and the other members of the Psychotherapy and Social Psychiatry section of the RMPA. Hare, himself an epidemiologist, argued forcefully ‘that the epidemiological aspects of social psychiatry would develop more favourably in another soil, away from the immediate discussion and study of psychotherapy’ [1].

The uneasy association between psychotherapy and social psychiatry was dissolved with the founding of the College, when Psychotherapy shared with Child Psychiatry the distinction of being the first sections to be established. Interestingly, this predated by four years the official recognition by the Department of Health of psychotherapy as a specialty. In contrast to the College south of the border, the Scottish branch retained a section of Psychotherapy and Social Psychiatry. Correspondence from its chairman indicated continuing conflict in aims between the two arms of the Section. In 1981 the Group of Social and Community Psychiatry was granted section status during my chairmanship, and the existing working parties were discontinued, to be replaced by time-limited working parties constituted to deal with specific issues. In some respects this was a recognition that the initial ideological divisions had become less salient with the passage of time, and harmonious working relationships had become established. However, there is a need to sustain a boundary between social psychiatry and psychotherapy, partly to limit the territory of the former to a manageable area and partly to avoid acrimonious disputes over real or imagined imperialistic ambitions. To this end, we will propose a definition of social psychiatry and in its exposition will explore the possibility of establishing the boundary referred to above.

## 1.1 A DEFINITION OF SOCIAL PSYCHIATRY

Social psychiatry is concerned with the effects of the social environment on the mental health of the individual, and with the effects of the mentally ill person on his/her social environment.

The phrase ‘concerned with’ is preferable to ‘the study of’ since, as we have noted, many people who regard themselves as social psychiatrists are primarily practitioners with little or no interest in research. The term ‘mental health’ is used in place of ‘mental illness’ since there is a tradition in this field of the promotion of health, beyond the prevention of illness and the accumulation of handicaps.

In conceptualizing the social environment it may be helpful to invoke the image of a pebble thrown into water, generating a set of concentric circles becoming
ever fainter with increasing distance from the pebble. At the outer limit, culture exerts an effect, then moving progressively closer to the centre, workmates, friends and family are increasingly influential. What is the numerical lower limit of the social environment? Can two people be considered to form an environment? The answer is clearly in the affirmative. Important research in the field has been concerned with the influence of the family on the course of psychiatric disorders. Depressed patients living with a partner and patients with schizophrenia living with a single elderly parent are examples of dyads that have been included in these studies and constitute legitimate subjects for research on social influences on psychiatric illness.

If dyadic relationships are fair game, then why not the relationship between a therapist and client? It is not possible to find grounds on which this should be excluded. Indeed, there are precedents for this relationship being included in social psychiatric studies in the area of ‘illness behaviour’ and ‘help-seeking behaviour’. This research has included investigation of the concepts of illness held by members of the public, their views as to the appropriate treatments, and negotiation between clients and practitioners over their respective models of illness [3–6]. It would be logical to extend these enquiries into relationships between psychotherapists and their clients. Is the word ‘relationships’ the key for which we have been searching? Would it be tenable to argue that social psychiatry is legitimately concerned with client-therapist relationships but halts at the boundary to the psyche, ceding intrapsychic events to psychotherapists of all persuasions? This argument has been eroded by the development of cognitive theories incorporating the individual’s concept of him/herself and the way he/she interprets external events [7]. In the extensive field of life events research, the notion of self-esteem has been invoked as a link between the lack of an intimate relationship and the depressing effects of events that represent a significant loss [8].

Life events research is one example of the longitudinal approach in social psychiatry. Although the time-scale in this area of research is relatively short, it entails the same assumptions as longer-term research, namely that experiences in the past are represented in the subject’s memory and operate in the present to trigger psychiatric illnesses. Past experiences include relationships as well as happenings [9]. Whatever the theoretical construction proposed to represent past experiences, be it self-concept (George Brown) or latent schemata (Chris Brewin), it is difficult to maintain a clear distinction from psychodynamic theories concerning the self and its intrapsychic processes. Some psychoanalytic theories are easier to reconcile with a socioenvironmental view than others, e.g. Freud’s seduction theory rather than his later renunciation of it. However, the conclusion of this line of argument is that the topics of central concern to psychotherapy, in its broadest sense, also fall logically within the ambit of social psychiatry.

Although psychotherapy and social psychiatry share a common interest in the origins of human distress, maybe they can be differentiated by their preferred method of advancing understanding of its determinants. Social psychiatry has relied heavily on epidemiological techniques for its enquiries, involving large numbers of subjects who are usually representative of a particular population. By contrast, research into psychotherapy and psychodynamics until recent years has tended to be hermeneutic, relying on the intensive study of individuals or small numbers of highly selected patients. However, current financial stringencies in the NHS are placing increasing pressure on all practitioners to provide evidence for the effectiveness of their therapies. Partly in response to this situation, psychotherapy is beginning to develop the academic arm of its discipline [10]. It is predictable that psychotherapy will increasingly employ the research methods that are part of the stock in trade of social psychiatry, diminishing the differences in approach that we have outlined.

This extended argument has not led to the erection of a solid barrier between social psychiatry and psychotherapy. The practitioners who belong to one or the other seem to have reduced the tensions that were apparent in their joint Group in the RMPA by developing a ‘gentleman’s agreement’ on territorial demarcation. We shall respect this agreement and the reader will not find any chapters specifically dedicated to psychotherapy in this volume. However, many of the contributors deal with topics that lie in the area of overlapping interests between psychotherapy and social psychiatry.
Psychotherapy is not the only discipline that interdigitates with social psychiatry. Sociology, social psychology, social anthropology and, more recently, cognitive psychology have all made valuable contributions to the development of social psychiatry (see Chapter 5). Durkheim’s classical study of suicide provided central themes for two of the British MRC Units conducting research in social psychiatry (Norman Kreitman’s and Peter Sainsbury’s), while sociological critiques of institutions (e.g. see Reference [12]) stimulated Wing and Brown to initiate a line of research that continued for over three decades. The proposition that social support protects against mental ill health derives from both social psychology and social anthropology, and until recently was the major focus of research in the Australian MRC Social Psychiatry Unit.

Social psychologists have conducted numerous studies of group processes, which are of direct relevance to those topics in social psychiatry that emerged from group therapy. Medical sociologists have increased our understanding of the ‘sick role’ and of the relationship between clinicians and their clients. Their work has illuminated the pathways traced by individuals as they undergo the transition into patients (see Chapter 24). The studies of migrants, which constitute a substantial corpus of research within the field of social psychiatry, would have been very ill-informed, if not fallacious, without the cooperation of social anthropologists. These related disciplines have provided a cornucopia of theories, concepts and techniques to enrich social psychiatry and stimulate its growth. Examples of this cross-fertilization will be encountered throughout this volume.

During the second half of the twentieth century there was a steep rise in interest in and research on the biological basis of psychiatric disorders, largely stimulated by new techniques in imaging the brain and the unravelling of the human genome. Biological research was not neglected in previous decades. In fact two of the three Nobel Prizes for advances in the treatment and understanding of psychiatric illnesses were awarded in the first half of the twentieth century. Julius Wagner-Jauregg won the Nobel Prize for Medicine in 1927 for showing that malarial treatment improved the prognosis of patients with cerebral syphilis (general paralysis of the insane). He was a contemporary of Sigmund Freud, who was disappointed not to get the prize for his work on the nature of unconscious mental processes. The next Laureate, Egas Moniz, had been nominated twice for the Nobel Prize for his development of the cranial angiogram with his surgical associate, Almeida Lima, but was finally awarded the prize in 1949 for his introduction of lobotomy for psychiatric disorders. In the 1940s and 1950s more than 50 000 patients had lobotomies in the US. This form of treatment has almost entirely fallen into disuse, ousted by the introduction of psychotropic medications and the lack of evidence for the benefits of leucotomy. After a lapse of another fifty years, in 2000 the Prize was awarded to Arvid Carlsson, Paul Greengard and Eric Kandel for ‘pioneering discoveries concerning one type of signal transduction between nerve cells, referred to as slow synaptic transmission. These discoveries have been crucial for an understanding of the normal function of the brain and how disturbances in this signal transduction can give rise to neurological and psychiatric diseases. These findings have resulted in the development of new drugs’ (Press Release, Nobel Prize Committee, 2000). Of the three Laureates, all working in basic science, Kandel was unusual in having embarked on a psychoanalytic training, which he abandoned for the laboratory.

The successes of biological psychiatry gave rise to an optimism that a solution to the problems of the aetiology and treatment of psychiatric disorders was within grasp. Nowhere was this as ebullient as in the
US, where the last ten years of the century were designated ‘The Decade of the Brain’. The embracing of biological explanations for mental illnesses led to extravagant claims, such as the identification of the gene for homosexuality, and was largely responsible for the virtual extinction of psychoanalysis in the States. In the 1950s a psychoanalytic training was almost obligatory for anyone aspiring to practise as a psychiatrist, and most heads of psychiatry departments had completed this.

In the UK there was also a swing towards biological psychiatry, but it was not as monolithic as in the States, although it did have a dramatic impact in one sector; the research units supported by the MRC. In the 1960s there were five such units engaged in research in the field of social psychiatry: Norman Kreitman’s in Edinburgh, Peter Sainsbury’s in Southampton, John Wing’s in the Institute of Psychiatry in London, Michael Shepherd’s General Practice Research Unit in the same institution and George Brown’s in Bedford College, London. By the time John Wing retired in 1989 his and George Brown’s were the only two left. I took over from John Wing for a period of six years, after which the unit was closed. George Brown’s unit has not been continued after his retirement. At the time of the closure of my unit the MRC stated clearly that in future they would not support a unit that focused on social psychiatry without being integrated with biological research.

1.4 SOCIAL PSYCHIATRY IN THE UNITED STATES

The optimism generated by the experience of military psychiatrists in World War II had a stimulating effect on the emerging social psychiatry movement in the US, as it did in the UK. Formal recognition of the changing atmosphere in psychiatry came with the creation of a National Institute of Mental Health in 1949. The Institute was faced with the major task of shifting the focus of care from psychiatric hospitals to community services. The financial means to achieve this were made possible by another milestone piece of legislation, the Community Mental Health Centres Act passed by the Senate in 1963. This was a response to President Kennedy’s call for a new approach to the delivery of services to people with psychiatric illness. The sum of 2.9 billion dollars was appropriated from the federal budget for this purpose.

The community mental health movement, which grew in strength from this injection of funds, was founded on the principles of social psychiatry, including the humane treatment of people with psychiatric illness, equality of access to health care, and the right of all citizens to full participation in society. There is a clear identity with the aims of the Civil Rights Movement and of Feminism, both of which were making a political impact during the same period. Many idealistic young people took posts in the community mental health centres and attempted to provide a high quality of care for the mass of long-term patients who were being discharged from the psychiatric hospitals. There were many unanticipated obstacles to be overcome, including the fact that a substantial proportion of people with schizophrenia needed prolonged and sophisticated rehabilitation, which was not available in the centres. There was also considerable opposition from the public who held stigmatizing attitudes. Furthermore, there were entrenched financial interests, which the youthful workers lacked the political experience to combat.

Widespread problems of homelessness developed among discharged patients, particularly in the cities. The resource of using private landlords to provide board and care often led to abuse of the former patients, who received a minimal standard of shelter and no care. Many of the discharged patients were living in conditions that were no better than in the psychiatric hospitals, and a considerable number ended up in prison, prompting the term ‘transinstitutionalization’ [15]. The financial provision for the centres was depleted by misappropriation of the federal funds by President Nixon in 1973. The net effect of these problems was to sap the enthusiasm of the proponents of the community mental health movement, which largely failed to fulfil its aims. Brown ([15], p. 149) considers that ‘the last era of general optimism was the community mental health period, roughly located in the decade and a half from...
1960–1975 ... many of the great promises of this approach were not met. In this failure we can locate the preconditions for the rise of a new biologism, a more strictly biomedical and asocial view of mental health and illness.

In the US the interest in social psychiatry has not been completely extinguished. Some enthusiasts continue to develop innovative and cost-effective community services, but the swing to a biological model of mental illness has been overwhelming. However, despite the vast sums of money that have been poured into biological research in the US, the Decade of the Brain failed to introduce any novel treatment for psychiatric illnesses, while during the same decade psychosocial treatments for schizophrenia and depression have been established by randomized controlled trials, including family intervention for schizophrenia [16], cognitive behaviour therapy for schizophrenia [17] and couple assisted therapy for depression [18].

An indication of the different historical trajectories of social psychiatry in the US and the UK is illustrated by a comparison of articles in the two principal general psychiatry journals in the US and UK, from which the great bulk of world psychiatric research emanates: the American Journal of Psychiatry (AJP) and the British Journal of Psychiatry (BJP). This study involved an analysis of the topics of articles in the two journals over the 55 years from 1950 to 2005, in which a full year of journals for the first and sixth year of each decade was scrutinized [19]. Articles were categorized broadly as biological, social and neutral (not fitting into either of the other two categories).

Inspection of the two lines in Figure 1.1 shows that in 1951 the AJP published a small majority of psychosocial articles, whereas the BJP published a great predominance of biological articles. Most of these dealt with aspects of insulin coma therapy, leucotomy, treatment of epilepsy and penicillin for neurosyphilis. During the following decade the proportion of biological articles in the BJP gradually fell, with a continuation of the same topics, but also studies on electroconvulsive therapy and the newly introduced psychotropic drugs: chlordiazepoxide, tricyclic antidepressants and antipsychotics. During this decade the proportion of psychosocial articles in the AJP declined as controlled and uncontrolled studies of the new psychotropic drugs began to be published.

Then between 1961 and 1966 there was a steep rise in the proportion of psychosocial articles in both journals, the slopes being almost parallel. However, the difference in proportions between these two years’ issues was of much greater significance for the AJP ($X^2 = 30.64, df.1, p < 0.001$) than for the BJP ($X^2 = 9.46, df.1, p < 0.001$). Both journals maintained the high proportion of psychosocial articles over the next decade, the period identified by Brown ([15], p. 149) as the era of greatest optimism for community psychiatry. As noted above, it also coincides with the development of the Civil Rights Movement in the US and the rise of Feminism. In 1966 the AJP included a special section of one issue on Social Psychiatry, and articles were also published on ‘The stresses of the white female worker in the Civil Rights Movement in the South’ and ‘Psychological aspects of the Civil Rights Movement in the South’.
Rights Movement and the Negro professional man’. These topics constitute further evidence for the influence of the cultural and political environment on the contents of both psychiatric journals, suggested by the timing of the rise evident from the graphs.

In parallel with the declining fortunes of the community mental health movement, the proportion of psychosocial articles in the AJP begins to fall. This descent continues in an almost linear fashion over the next two decades, reaching its lowest level in 50 years (34.8%) in 2001. At this point in time the AJP features almost twice as many articles of a biological nature as psychosocial articles. By contrast, the proportion of psychosocial articles in the BJP, after a moderate fall from 57.9% in 1966 to 46.3% in 1981, rises slowly but steadily to 59.0% in 2005, its highest level in the 55 years of the survey. By chance the proportions in the two journals are virtually identical in 1986, when the descending graph of the AJP crosses the ascending graph of the BJP. From this point, in terms of the publication of psychosocial articles, the two journals have been moving progressively further apart over the next two decades. The BJP shows a significant increase in the proportion of these articles, while the AJP exhibits a significant decrease of approximately the same magnitude. As a result, by 2005 the difference in the composition of the two journals is highly significant.

How can we account for the opposing trends in the publication of psychosocial articles in the American and British Journals of Psychiatry? They appear to reflect a genuine divergence in both the research effort and in the practice of psychiatry. Research in social psychiatry is more strongly influenced by clinical practice than biological psychiatry, which depends heavily on technical advances in areas such as genetics and brain imaging. There are major differences in the structure of the health services in the two countries, which determine the practice of psychiatry. In the US, health care is dominated by the private insurance companies such as Blue Cross Blue Shield, which offers health insurance in every US state. Their policy is to reject applicants who have a pre-existing medical condition. People with psychiatric illnesses often have a long prodrome before seeking medical help, enabling the insurance companies to exclude them on this ground. Furthermore, private health insurance is frequently part of a package linked to employment, so that people without a job lose out. A high proportion of people who develop schizophrenia are unemployed at first contact with the services, 82% of African-Caribbean patients in a recent UK study [20]. Because psychoses are often life-long conditions, they are not profitable for private insurance companies, and therefore usually fall under the state medical care system, in which standards are uneven. By contrast, the UK National Health Service excludes nobody from health care, regardless of their economic status and the chronicity of their illness. It is truly comprehensive.

Another important difference in practice is the tradition of home visiting in the UK. It was standard for general practitioners to visit their patients in their own homes, although this has become less common, whereas in the US doctors work in offices, to which patients are expected to travel. In the UK, community psychiatric nurses and community occupational therapists regularly see patients at home, and psychologists and psychiatrists do so when necessary. In fact, this is the ideological basis of community mental health teams and crisis teams, the aim being to ensure that everyone who needs the service has unrestricted access to it.

A damper on swings of opinion in psychiatry is provided by the inherent caution of the UK psychiatric profession. Sceptical of embracing innovative movements uncritically, British psychiatrists were not enthusiastic about psychoanalysis, and it did not achieve the widespread acceptance that characterized American psychiatry in the mid-twentieth century. There have never been more than four hundred trained psychoanalysts in Britain. That is not to say that psychodynamic ideas and concepts have failed to influence the practice of psychiatry in the UK, but they have been absorbed into an eclectic mix of approaches rather than becoming the dominant paradigm. Similarly, while biological psychiatry has its adherents in the UK, few psychiatrists rely solely on physical methods of treatment, to the exclusion of attention to the patient’s social environment, including close relationships.

In conclusion, the comprehensive nature of the National Health Service in the UK, the standard of care provided to all psychiatric patients regardless of diagnosis and chronicity, and the high proportion of
staff who see patients in the setting of their family through home visits, are conducive to a social approach to mental illness. In combination with the traditional eclecticism of British psychiatry, these factors will ensure the persistence of social psychiatry as an ideological and practical discipline. However, the advances in biological psychiatry cannot be set aside. The policy enunciated by the UK MRC during the Decade of the Brain is correct: collaboration is necessary between biological and social psychiatrists so that the advances in social psychiatry can be underpinned by new knowledge of brain functioning, and the discoveries of the workings of the brain can be given a meaning through understanding of the patients’ social environment.

REFERENCES
