

EPIDEMIC SUICIDE AMONG MICRONESIAN ADOLESCENTS

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Abstract—Suicide rates since 1960 in Micronesia (the U.S. Trust Territory of the Pacific Islands) have undergone an epidemic-like increase. This phenomenon is focussed narrowly within the 15–24-year male age-group. Extremely high rates and culturally patterned motives and methods are now characteristic of this group. Survey research throughout Micronesia suggests that the epidemic increase in adolescent male suicide is a cohort effect among the first post-war generation. Traditional adolescent socialization in pre-war Micronesia largely involved village-level subsistence activities organized around communal lineage-houses. This extra-familial level of socialization served as a cultural solution to the residential and psychological distance post-pubertal males maintained from their domestic families. With the post-war social change in Micronesia, the communal village-level of organization has largely disintegrated, causing adolescent socialization functions to be absorbed by the nuclear family. The resulting situations of intergenerational domestic discord appear the primary social triggers for adolescent suicide. At the same time, suicides have acquired subcultural significance among male youth, giving rise to fad-like and imitative acts. A 3-year research project is now being undertaken to conduct an ethnographic study of factors contributing to adolescent stress and suicide in one Micronesian community.

INTRODUCTION

This paper presents data and tentative interpretations from a cultural-epidemiological field survey of suicide in Micronesia (the U.S. Trust Territory of the Pacific Islands) [1]. The survey originated in response to recent reports [2–4] describing an 'epidemic' of adolescent suicides occurring in Micronesia. Research to date has been primarily exploratory, aimed at documenting the increasing incidence of suicides, and describing the psychosocial precursors of the acts, including the cultural context in which they occur. The survey has confirmed an epidemic-like increase in suicide among young Micronesian males during the past 20 years. Culturally patterned methods and motives for adolescent male suicides appear to be characteristic in certain geographically and ethnically distinct areas within Micronesia. This paper seeks to relate this suicide epidemic to recent sociological changes affecting Micronesian adolescence, and also to interpret the meaning of the suicides within the youth subculture [5].

RESEARCH SETTING

The culture area of Micronesia encompasses mainly the four great archipelagoes of the western Pacific—the Carolines, the Marianas, the Marshalls and the Gilberts. With the exception of Guam (a U.S. possession), and the Gilberts (now the Republic of Kiribati), these islands have formed the U.S. Trust Territory of the Pacific Islands since the end of the World War II. The Territory includes over 2000 miniscule islands (total land area 730 square miles) distributed over an ocean expanse the size of the continental U.S. Only about 125 of the islands are inhabited, by a Micronesian population of approx. 135,000. The six major island groups (Palau, Yap, Truk, Ponape, Marshalls and Marianas) within the Territory are all fairly distinct culturally and linguistically from each other, although they share a very similar postwar experience under

American administration. During the past 35 years Micronesian communities have experienced rapid sociocultural transformation towards increasing reliance upon cash economy and government employment, American-style schools and health services, and modern forms of technology, consumer goods, transportation and communication.

Geographically, there are three basic types or sectors of settlement: district centers, peri-urban fringe areas nearby the centers, and outlying islands. A wide divergence exists between the urbanizing port-town district centers, mostly situated on the high volcanic islands, and the remote, outlying atolls and islets. The district centers are the foci of change, containing modern American-style schools, hospitals, stores and jet service almost daily to and from Honolulu or Guam. Consequently, these are the center of densest population and wage labor predominates over subsistence economy. On the outer islands, by contrast, the predominant economic mode is subsistence fishing and horticulture and many of these outer islands still follow largely traditional, communal Micronesian life-ways. The outer islands, several hundred miles from a district center, are accessible only by small government freighters which arrive monthly, at best. Intermediate between these two geographic extremes are the peri-urban fringe areas, containing the rural communities and lagoon islands, accessible to the district centers in an hour or so, by travelling along unpaved roads or by motorboat. In these rural communities the economy is mixed wage labor and subsistence, and the people are increasingly attracted, economically and socially, to the opportunities and image of the nearby district center.

The cessation of World War II in Micronesia and the advent of antibiotics stimulated a sudden demographic shift from a slowly declining population to a rapidly growing one. Hence, the current Micronesian population is extremely youthful (median age 16) and fertile (annual population increase is over 3%).

SURVEY DATA AND TENTATIVE ANALYSES

Methods

Cultural-epidemiological survey research [1] conducted over a 2-year period 1979–1981 involved three tours throughout the Micronesian islands (Palau, Yap, Truk, Ponape and Kwajalein and Majuro in the Marshall Islands), with visits of several weeks in each major population center and briefer excursions to the outlying islands. All available official reports were examined for data relevant to Micronesian suicides during the post-war period. These sources included hospital and medical records, all death certificates from each District Clerk of Courts Office, police records and statistics where compiled and pertinent church records. Also included were all suicide case materials previously collected by staff psychiatrists at the Trust Territory Department of Health Services in Saipan, and by researchers at the Micronesian Seminar in Truk (a Jesuit-sponsored organization for social research in Micronesia).

These official reports and statistics were supplemented by about 250 semi-structured interviews modeled on the 'psychological autopsy' protocol [6], conducted with suicide attempters, and with friends and relatives of suicide victims throughout Micronesia. These interviews employed a snowball technique (inquiring of interviewed respondents whether they know of additional cases among the family or friends of the victim), by which the case file was expanded considerably beyond official reports and statistics.

This field technique of wide canvassing throughout a population; of interviewing central community members such as priests, police officials, and medical officials who would be informed of local suicides; and of cross-checking and supplementing this information through lengthy interviews with family and friends of suicides, has produced much more thorough and reliable cultural-epidemiological data than could be retrieved from official sources alone. The semi-structured interviews were designed to provide data on a broad range of personal and situational dimensions of the suicides:

Personal: name, age, sex, marital status and history, occupation and employment history, educational level, residential history, sibling position, previous suicides within the family and among friends, medical and psychiatric status, criminal or delinquent record, general description of personality attributes;

Situational: alcohol or drug use at time of suicide, time and date of suicide, method used, place of occurrence, presence of others, previous evidence of suicide communication, motive or precipitating event for the suicide, reaction by others.

EPIDEMIOLOGICAL FINDINGS

The field survey has produced a case file of over 300 suicide deaths, and over 300 suicide attempts of varying degrees of seriousness, which have occurred in Micronesia between 1960 and 1980. The main epidemiological trends and case characteristics are presented briefly below.

Increasing incidence

Field data confirm an epidemic-like increase in suicide rates overall in Micronesia, during the 20-year period 1960–1979. Figure 1 illustrates this increase. Micronesian suicide data for this 20-year period were aggregated into five 4-year sequences and the mean annual number of suicides calculated for each sequence. Suicide rates for each 4-year sequence were computed by using the population figure [7] from the midpoint of the sequence. Data were aggregated in this way to smooth the annual statistical fluctuations in suicide rates owing to the relatively small Micronesian populations (from 65,000 to 115,000, excluding the Marianas population, during the 20-year period).

These data show an eight-fold increase in the suicide rate of Micronesian males, during the two decades under study. Comments of older Micronesian medical personnel corroborate these data. One Marshallese medex represented the widely shared perception of suddenly increasing suicide rates over the past generation, with his comment that "fifteen years ago when there was a suicide, people would talk and talk about it, but now it seems that there is a suicide nearly every month, and it's hardly news". Significantly, the rate of increase appears highest within the years 1964–1975. During this period the postwar birth cohort was passing through the stage of 15–24 years of age, roughly from puberty to marriage, which is the developmental stage for greatest risk of suicide currently in Micronesia (see below). Since 1975, the male suicide rate has continued to increase, although the increase is less rapid than during the previous 12-year period. This finding suggests that the epidemic rate of

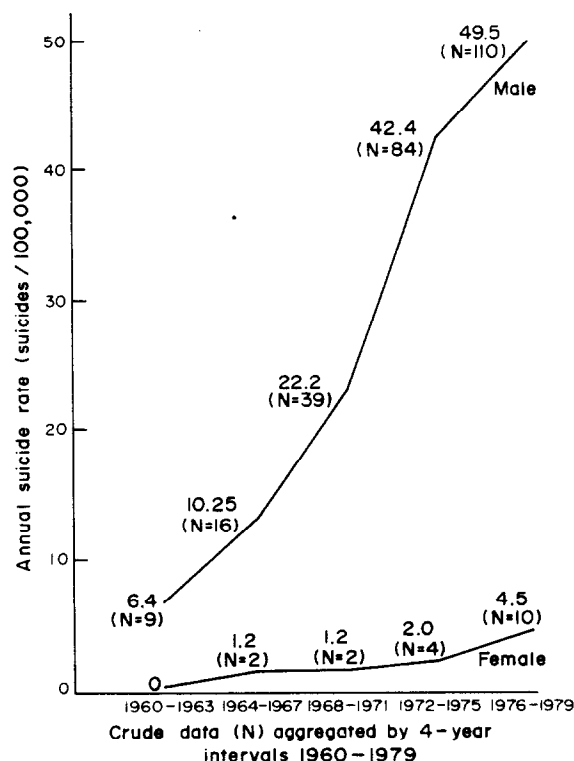


Fig. 1. Annual rates of Micronesian suicides from 1960 to 1979.

Micronesian male suicide has developed in association with the recent entry into adolescence of the immediately postwar birth cohort. Although suicide is documented from earlier Micronesian generations [8], neither written records nor oral history suggests an earlier suicide rate or adolescent focus such as is characteristic of the post-1960 years.

Adolescent male focus

Figure 1 shows, in addition to the steep increase in suicide rates of Micronesian males, the much greater incidence of male suicides over female suicides. The data for Micronesia overall show a 16:1 male/female ratio for suicide deaths.

The modal age for Micronesian suicides in our case file is 18 years of age, and the median age is slightly under 20 years of age. This age focus is almost exclusively a male phenomenon: for instance, of the 18-year-old suicides alone, 23 out of 25 were male. Of the 300 Micronesian suicide deaths among the 1960–1980 data, over one-half (160 cases) occurred among males between 15–24 years of age, while less than 5% (14 cases) occurred among females of the same age group. Figure 2 illustrates the adolescent male focus of the suicides.

The aggregated 20-year data for Micronesia overall give annual suicide rates of 66 (per 100,000) for 15–19-year-old males, and 101 for 20–24-year-old males. More significant, however, are the male suicide rates attained only within the last five years of this 20-year period, especially among two cultural groups within Micronesia—the Marshallese (1977 population 25,500) and the Trukese (1977 population 36,500). Analysis of aggregated five-year data from 1975 to 1979 yield the following suicide rates (per 100,000).

	(male)	
	15–19	20–24
Trukese	243	255
Marshallese	158	174

By comparison, the U.S. 1978 rates for these age-sex groups were 12.8 and 27.4, respectively [9].

Geographic distribution

How do the suicides map onto the geographic sectors (district center, fringing communities and outer islands) described above? Survey data suggest that the peri-urban fringe areas have the highest rates of suicide. This is especially apparent with Truk and Ponape, where this model of center-fringe-outlier is most applicable. For instance, the suicide rate on Moen, the Truk district center island with a population density of 1200/square mile, is one-third to one-fifth the rate on the rural lagoon islands ten miles away, with population densities of approx. 100/square mile. Similarly on Ponape, the suicide rate within the district center (Kolonja) is one-third to one-fourth the rate as in the rural municipality (Madolenimh) along the southeastern coast. On the remote outer islands suicides are rare although sporadic events, far less frequent than in either the district centers or fringing communities. The outer islands seem to have maintained an aboriginal pattern of stable, low suicide rates, in contrast to the recent appreciable increase in suicide rates in center and fringing communities.

These preliminary data suggest that the epidemic increase in Micronesian suicides is associated predominantly with a post-traditional, transitional phase of culture change in Micronesia, midway between traditional subsistence culture and the modernized port-town life. In the sociological analysis proposed below, I will return to this point.

Intercultural differences in suicide epidemiology in Micronesia

The discussion of epidemiological trends thus far has presented the data as a whole, from the overall population of Micronesians. This population-level approach, however, obscures significant differences in the epidemiological characteristics of suicides from one cultural group to another. For example, although the incidence of suicide in Micronesia as a whole has shown a 5–10-fold increase during the 20-year period 1960–1979, in Palau the rate has been remarkably stable during this period, and has just kept even with natural population increase. Other epidemiological differences are evident from a cursory examination of raw incidence data charted by cultural group in Fig. 3. In Yap for instance, the median age of 29 for male suicides is nearly 10 years later than the median age in Truk and the Marshalls. The Marshalls data show an especially tight clustering of suicides among the age group of 15–24-year-old males, and virtually no female suicides in this age group. In Truk by contrast, the suicide phenomenon appears to have an earlier onset and longer duration; there are a significant number of suicides among boys between the ages of 10–14, as well as young men in their late 20s. The Ponape data are more problematic, owing to the ethnic heterogeneity of the island. About one-quarter of the Micronesian residents on Ponape are not ethnic Ponapeans, but are settled immigrant families from other, culturally distinct islands (primarily from Pingelap, Mokil and the Mortlock Islands in the Truk area). This quarter of the population accounts for about two-thirds of the suicides in Ponape since 1960. Especially significant is that the Mortlockese (a Trukese ethnic group), who have had resident communities on Ponape for the past several generations, appear to be replicating a suicide pattern that is characteristic of Truk, with a distinctive focus of suicides among young boys. These inter-ethnic differences within Micronesia argue for the importance of

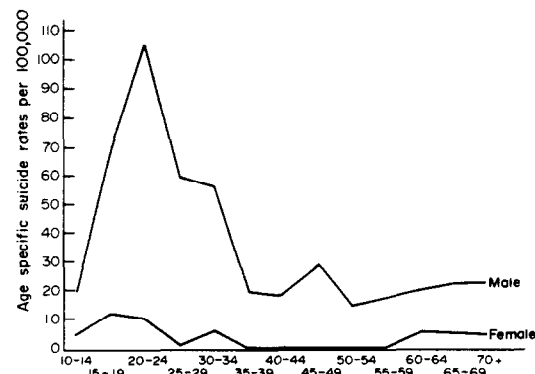


Fig. 2. Age-specific Micronesian suicide rates for 5-year age cohorts. Suicide data 1960–1980* [7].

	FEMALE	MALE
Palau	10-14	xx
	xxxx 15-19	xxxxxxxxxxxx
	x 20-24	xxxxxxxxxxxx
	25-29	xxxxxx
	30-34	xxxxxxxxxx
	35-39	xx
	40-44	x
	45-49	xx
	50-54	
	x 55-59	x
	60+	x
Yap	10-14	x
	xx 15-19	
	x 20-24	xxxxxx
	25-29	xxxx
	30-34	x
	35-39	xxx
	40-44	
	45-49	x
	50-54	xx
	55-59	x
	60+	x
Truk	x 10-14	xxxxxxxxxx
	xxx 15-19	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
	xx 20-24	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
	25-29	xxxxxxxxxxxxxxxxxxxx
	xx 30-34	xxxxxx
	35-39	x
	40-44	xxx
	45-49	xxx
	50-54	x
	55-59	xx
	60+	xxxxxx
Ponape	x 10-14	xxxxx
	15-19	xxxxxxxxxxxx xxx
	x 20-24	xxxxxxxxxxxx x
	25-29	xxx
	30-34	xxxxx
	35-39	x
	40-44	
	45-49	xxx
	50-54	
	55-59	
	60+	x
Marshall	10-14	
	15-19	xxxxxxxxxxxxxxxxxxxxxxxx
	20-24	xxxxxxxxxxxxxxxxxxxxxxxx
	25-29	xxxx
	30-34	
	35-39	
	40-44	xx
	45-49	
	50-54	y
	55-59	xxx
	x 60+	xy
	FEMALE	MALE

Fig. 3. Distribution of Micronesian suicides by age, sex and island group. x = one suicide (based on preliminary data from 1960 to 1980).

grounding any analysis of suicide to the local social context and cultural meanings associated with suicide. In the analysis presented here, the primary focus will be on Truk and the Marshalls, since these two groups represent the bulk of data of adolescent male suicides, both in absolute numbers and in relative rates.

Case characteristics

The interview data present a fairly consistent portrait of Micronesian suicides. Biographically, the

typical suicide is an 18-year-old boy, frequently an older son, still unmarried and living at home. More often than not the boy is still in high school, or if a dropout, has found some sort of manual work near home. Situationally, the suicide typically occurs on a weekend night and the young man has often been drinking with friends. The usual situation which appears to provoke the suicide is some domestic disagreement, most often an argument with parents or occasionally with a girlfriend. Often the disagreement seems trivial in nature—the parents refuse to give the boy a few dollars for more beer, or they scold him for drinking. In roughly 75% of the cases, there had been no previous suicide attempts or even explicit threat or communication. With few exceptions, the suicide is by hanging, in a remote place or empty house or room. Commonly, these are not suspended hangings. Rather, a noose is tied to a low branch, a window louver or doorknob, and the victim leans into the noose from a kneeling or sitting position, then gradually loses consciousness and dies from anoxia.

The sudden, apparently spontaneous and unplanned nature of the Micronesian suicides, as responses to seemingly trivial situational triggers, is the most paradoxical of the clinical aspects of the adolescent suicide phenomenon. Several representative examples of the typically brief explanations Micronesians provided for adolescent suicides are given here.

13-year-old boy: Hanged himself after being scolded by his mother.

19-year-old high school senior: He wanted to attend college on the U.S. mainland. He was angry because his parents had not bought his graduation gown or paid his college application fee; he hanged himself.

16-year-old boy: Hanged himself because he was refused \$1 by his father.

17-year-old boy: Hanged himself after being reprimanded by an older brother for making noise.

When interviewed about suicides such as these, Micronesians typically phrase their interpretations in terms of 'anger', much as Americans popularly associate suicides with 'depression'. In these Micronesian explanations, however, there is a notable absence of retaliatory or aggressive intent attributed to the adolescent suicide [10]. Rather, the specific indigenous terms for 'anger', as applied to suicidal acts, carry the connotation of appeal. According to this cultural logic, the adolescent's self-destructive act seems staged as an angry protest against the parent or elder relative, and intended not to injure the other, but to solicit the support and nurturance of the other, in response to some triggering event that perhaps signals or culminates a significant rupture in the relationship [11, 12]. These interpretations have a bearing upon numerous Micronesians studies which have described the marked cultural inhibition of direct or covert expressions of anger or aggressive and hostile feelings [13-21]. The element of anger or aggression has been well-formulated generally in theoretical writings on suicide dynamics [22, 23]. Writers concerned with the social meanings inherent in suicides have noted in particular the 'appeal function' evident in aggressive suicides and attempts by the young [24, 25]. At this

preliminary stage of the Micronesian research, however, we lack adequate descriptive data on the socio-cultural context (family relationships, peer networks and adolescent activities, value hierarchies and conflicts) which both generate the episodic anger and suicidal acts of Micronesian adolescents, as well as provide these acts with their specific social meanings.

'Clinical reality' vs 'folk explanation'

At this point it is useful to raise some methodological questions in interpreting these data on case characteristics. Suicide descriptors and statistics such as time, place and method of act, incidence, age and sex ratios, etc., are not especially problematic, insofar as they satisfy the usual scientific criteria of reliability, completeness, and case definition. However, respondents' reconstructions of suicide *motives* and communicative intent are a fundamentally different sort of data. In this area we are dealing not with clinical realities of time and place, but with Micronesians' culturally patterned *ways of thinking and talking* about suicide. Bohannon, in his work on African suicides [26], uses the term 'folk explanation' to suggest that local explanations for suicides can be interpreted as culturally constructed "texts" which express key themes concerning emotions, personal relations, core values, and notions of personhood [27]. Clearly this is relevant to interpreting Micronesian accounts of suicides, which are phrased commonly in terms of highly episodic, impulsive responses to what seem to be fairly routine and trivial incidents. To the extent that Micronesians' 'folk explanations' are shaped by their own implicit cultural understandings of psychological motivation and social action, how closely would a Western 'clinical reality' correspond with Micronesian perceptions of these acts?

The survey data collected thus far are inadequate to answer this question, since we still lack sufficient understanding of the personal situation and the cultural context of the suicides. However, the highly clustered age-sex focus around male adolescence, and the general and consistent theme of the adolescent male's anger in the context of authority-dependency relations within the family, suggest strongly that an explanatory model of adolescent male suicides in Micronesia must relate to recent changes in inter-generational relations between boys and their parents. It suggests also a way of interpreting the explanations that a 16-year-old boy 'hanged himself because he was refused \$1 by his father'. The account is figurative, in its metaphoric, or more precisely, metonymic function of pointing to a particular illustrative event which represents what Micronesians implicitly seem to recognize as a period of conflict in the relations between late adolescent boys and their parents.

In the section which follows, the paper will propose a tentative sociological analysis of the current context of male adolescence in Micronesia, against a background of the traditional structure and function of adolescence, and the recent changes that have occurred in Micronesia. The aim is to understand why the current 'epidemic' began in the mid-1960s, why there was a ten-year period of rapidly increasing rates followed by what seems a recent abatement, and why the focus of suicides is among the 15-24-year-old males.

ADOLESCENT CONTEXT

The argument in this section rests first on a specific conceptual model of Micronesian childhood and socialization. Borrowing an image from Parsons [28], we can liken the child to a pebble, dropped by the fact of its birth into the social pool, and being the center of ever-widening circles of social relations. In a given culture, the process by which the child's circles expand conforms to the cultural agenda for socialization, and for the marking and perhaps dramatizing of the passage from one social circle to the next. The model proposed here for the process of Micronesian socialization is that structural tensions generated for an individual within one circle of social relations are resolved by incorporation into a wider circle.

For example, observers of Micronesian childhood, and Oceanic childrearing patterns generally, have commented on the structural predicament that 3-year-old children experience [29, 19]. Their early infancy of indulgence and coddling ends rather abruptly around weaning. Often the mother is again pregnant, but even if not, her pattern of interaction with the 3-year-old changes its tone, and becomes fairly disengaged by contrast to the total attention the 3-year-old commanded from her 6 months earlier. The tight social circle comprising infant and mother shows symptoms of tension, as the mother grows increasingly inattentive and impatient towards the child's demands, while the 3-year-olds often undergo a characteristic shift in disposition as they find themselves displaced from the center of the mother's affection.

The institution of child adoption, widespread in Micronesia and Polynesia, appears to function in part as a compensatory mechanism or cultural solution to the strain generated in the changing relationship between 3-year-old children and their mothers [30]. In the central Micronesian islands of the Truk area, adoptive ties serve as a supplementary rather than replacement set of parental kin [31]. Within these small island communities, virtually all the children may have adoptive parents or godparents, or relatives who serve as such, and at the time when mother-child interaction is commonly showing evidence of strain, children often move into an adoptive household. Micronesian parents give explicit recognition to the value of these wider social ties for the child and thus some of the motivation for the mother's disengagement from the 3-year-old may come from her interest in the child's forming wider adoptive and kinship bonds [32]. The functional relationship here is circular—the incorporation of the child into a wider kin network of surrogate parents functions to resolve the structural tension at the level of the mother-child relationship and conversely, the cultural patterning of this mother-child tension around the middle of the third year, serves the culturally-valued goal of detaching the child from exclusive identification with the natural parents, and facilitating bonds beyond the nuclear family.

Gladwin has suggested a similar process that occurs for Trukese boys at the time of sexual maturity [14]. A relationship of avoidance and reserve develops between brothers and sisters. Here again, there is a clear structural tension generated at one level of

organization: a cross-sibling tension at the level of the domestic household. In Truk of one or two generations past, the cultural solution to this structural tension was the incorporation of the boy into the wider circle of the lineage men's house. In these matrilineal and uxori-local communities, girls generally followed a stable residence pattern throughout childhood and into marriage and adulthood. An adolescent girl would have a considerably closer domestic relationship with her parents than would her adolescent brother. The structural tension created by brother-sister avoidance and formality was evidently borne much more heavily by the brothers than the sisters. Based upon his 1949 study of Truk, Gladwin inferred that the structural situation of adolescent Trukese boys creates a period of 'social and economic insecurity', during which the young men are 'socially adrift' in their own society. Traditionally in Truk the lineage men's house provided some compensation for this structural insecurity, although Gladwin suggests that the young men do not fully regain an economic and social position of stability until they marry in their mid-20s, and are again reincorporated into domestic household life.

Until recently, in many areas of Micronesia these community-level men's organizations served a central function as a focus of social identity and daily economic activities of the young unmarried men. The men's clubhouses and village or lineage-house organizations served to some degree to mobilize adolescent energies into productive communal activities such as fishing, village maintenance, house-thatching, or ritualized warfare [33]. These village-level organizations also helped to compensate the structural tension and distance which sexually mature adolescent males encountered in family-level relations with their sisters and parents. Even in parts of Micronesia, such as the Marshalls, that traditionally had no men's clubhouses or lineage-house organizations, young men were actively engaged in fishing, sailing, canoe and house building and gardening. These pursuits provided adolescents with productive recreation, and with a basis for social identity and feelings of competence and self-worth [34].

The age-sex focus of Micronesian suicides among the 15-24 year-old male age-cohort becomes more comprehensible in the light of this conception of Micronesian socialization and adolescence. It is this group of males, from the age of sexual maturity in mid-teens, to marriage in mid-20s, that appears to face the greatest structural tension and insecurity in Micronesian society. In order to understand why this 10-year male adolescent stage has become especially problematic during the post-war generation, it is necessary to review briefly the recent transformations in Micronesia.

World War II in Micronesia marked a major cultural watershed. The war years were a period of dislocation and disruption of island communities which until then had maintained a largely traditional form of subsistence communal life. The war also marked a demographic reversal of the pre-war, slow population decline (see Research Setting, above). The consequence of this demographic and cultural shift is a disproportionately enormous post-war youth cohort, that has come of age in a cultural setting quite differ-

ent from that of their pre-war and traditionalist parents. Burgeoning U.S. financial aid to Micronesia during the past 20 years has fostered enormous expansion of government employment, and a growing dependence on cash economy throughout the Micronesian population. This development of a wage economy, combined with U.S. federal feeding programs and welfare assistance to Micronesians, has supplanted roughly half of the subsistence sector [35]. Development of individualized cash-based family economies has largely replaced the traditional exchange networks, especially in the district centers, but increasingly in the fringing communities as well. Since the Kennedy administration, the U.S. policy towards Micronesia has been to rapidly Americanize the population, hence the massive influx of Peace Corps volunteers, the use of military construction battalions for building American-style schools and dispensaries on every island, and the generous support to Micronesian students for U.S. college attendance.

Among the recent sociocultural transformations, two general areas of cultural changes have had an especial impact on contemporary adolescence in Micronesia. The first is the virtual extinction of the traditional men's clubhouses and functioning men's organizations, which until recently had played such a central role in adolescent male activity and social identity. With the progressive weakening of the communal village-level and corporate kin-based subsistence economic activities, these clubhouses and men's organizations have lost their functions and undergone a rapid demise. The second general change is a cultural shift in values and interests among the young, towards what they perceive as a more modern, Americanized and individualized life-style.

The structural consequence of the loss of organized village-level social forms for adolescent socialization has been an absorption of adolescent socialization functions by the domestic family. Yet there is no cultural script, as it were, for easy relations between adolescent males and their parents and the society's solution (clubhouses and men's organizations) to this structural tension is no longer available. At the same time, post-war changes have fostered a set of adolescent values and demands that are quite different from those of their parents, and this has further sharpened the points of intergenerational tensions. Perhaps significant in this respect is that suicides seem over-represented among oldest and elder sons, whose birth position would exacerbate these authority-dependency conflicts. Also significant is that the onset of the epidemic increase in young male suicides began in the mid-1960s, and that the increase lasted about ten years before apparently abating. The first post-war birth cohort reached sexual maturity around the mid-1960s, and their 10-year stage of high suicide risk between the ages of 15 and 24 corresponds closely to the epidemic risk in Micronesian suicides from the decade of the mid-1960s to the mid-1970s. The apparent abatement in this epidemic increase during the past five years may be evidence that this cohort effect involving intergenerational conflict and adolescent suicide has begun to peak, as the first post-war generation in Micronesia reaches adulthood and marriage.

The sociological analysis proposed here may also

provide some understanding of the geographic distribution of Micronesian suicides, i.e. the considerably lower rates in the district centers than in the fringing communities. First, there is an incipient male youth subculture developing in the district centers, that is largely American in orientation and centers around the basketball courts, the bars and discos and the poolhalls. Through these recreational and sports pursuits, youths are perhaps rediscovering a set of territories and activities, outside of the domestic context, around which they can organize their interests and energies. These adolescent gathering-places and pursuits serve as functional replacements of the former clubhouses and traditional fishing or gardening activities of the youths. Secondly, district center parents are typically those adults more familiar with and assimilated into modern life-styles than are their rural counterparts. Consequently, they are likely to be culturally closer to the postwar youth values. It is reasonable to expect that parent-adolescent conflict in such families would be significantly milder than in families marked by wider intergenerational divergence in values.

In summary, the analysis offered here derives from a sociological theory of anomie, grounded in the particular historical circumstances within Micronesia, and resting on a specific conceptual model of adolescent male socialization. This analysis has sought to relate the recent suicide epidemic to a cohort effect of the first postwar generation of males, encountering an adolescent period of marked insecurity. Even in traditional times this period was problematic, and recently has been more so, owing to the structural loss of traditional village-level supports for male adolescence, and to the intergenerational dissonance brought on by a rapid shift in youth values and demands. The validity of this proposed analysis still remains to be established, however, and will depend upon a firmer understanding of the psychological precursors and cultural context of the suicides.

There is a quite different aspect of the Micronesian suicide phenomenon which merits examination here. This is the cultural issue of the significance and meaning of the suicide act itself to the young Micronesian men. Although the personal meaning of a suicide act to a given individual is, perhaps, ultimately unknowable, the *cultural* meanings associated with suicide may be evident in the recurrent themes and motives attributed to suicides within a specific locale. The section which follows addresses this issue.

CULTURAL MEANINGS OF MICRONESIAN SUICIDES

Different cultural groups within Micronesia attribute rather different meanings and themes to suicide. By considering the recent chronology of suicides within a single community, rather than describing them on the level of the larger cultural area, explicit linkages between cases become evident, or similarities appear that suggest a process of modeling or contagion. The suicide *act* acquires a specific local meaning, as a culturally-patterned solution to certain kinds of dilemmas. One prolonged sequence of cases from Ebeye Island in the Marshalls illustrates how a single case appears to have become a dramatic model for successive suicides.

Ebeye is a densely populated island of about 6000 people, living on roughly one-eighth square mile. The island serves as the Micronesian labor camp for nearby Kwajalein Missile Range which employs about 500 Ebeye adults who commute daily from Ebeye where they live with their families. From 1955 through 1965 there were no recorded or recollected suicides on Ebeye. A single case occurred in May 1966, an 18-year-old youth who allegedly hanged himself in jail on Kwajalein, after being arrested by the security patrol for stealing a bicycle. The boy was described as a 'local tough,' and few people today on Ebeye seem to recall the case; his suicide appeared to have had little impact on the Ebeye community.

In November of the following year, however, there was a dramatic suicide of R., a prominent and intense 29-year-old man, the son of one of the wealthiest Ebeye families. This case subsequently became a local model of a 'lover's dilemma' suicide, and figured importantly in the succession of cases on Ebeye. The following account was provided by a brother of R.

R. was involved with two ladies. They were both the same age, and they both had a one-month-old daughter by R. R. went back and forth between the two of them. He hanged himself because he couldn't make up his mind, and he had just quarreled with one of them. When he was buried, both ladies cried on his grave, and they both fainted. They had heard rumors about each other, but they only learned about each other at R.'s funeral.

Three days after R.'s death, there was another suicide, by a 22-year-old male who was described simply as 'having problems with his wife'. This was the second suicide in a week, in a community which evidently had seen only a single suicide in the previous 12 years. The medex on Ebeye reported that "After R. died many boys dreamed about him and said that he was calling them to kill themselves". Over the next 12 years there were about 25 suicides, which appeared in clusters, three or four cases occurring over the course of several months, then none for a year or so. In 1975, during a rash of suicides and attempts, a visiting anthropologist wrote that "Several suicide victims and several who have recently attempted suicide reported having a vision in which a boat containing all the past victims circles the island, with the deceased inviting the potential victims to join them. Many have" [36]. In most of these and succeeding cases, the accounts attribute the suicide to some sort of 'love problem' and in a number of cases, the explanation bears strong similarity to the 'lover's dilemma' of R. One such case is recounted below.

M. was a high school student in Majuro (250 miles from Ebeye) and had a girlfriend there. He was suspended for drinking in the middle of the year, and returned to Ebeye alone. Back on Ebeye he found a second girlfriend. When summer vacation arrived, his first girlfriend returned to Ebeye, and he took up with her again for several weeks. At the end of June he hanged himself, and near the site of his suicide he painted a large sign on the wall: "Best wishes to M. and C. (the two girlfriends). It's been nice to be with both of you".

The notice served as a sort of public validation of his dilemma, and a definition of the meaning of his suicide.

In several communities where there have been opportunities for intensive interviewing, explicit linkages among suicide cases have become apparent, such as the occurrence of two or three suicides among a small circle of friends, over the course of several months. There have also been cases of a reactive suicide or suicide attempt by a young man, at the graveside of a friend or relative who committed suicide. Suicide 'pacts' among two or more adolescent friends have also been recounted. The meanings and significance of the suicides must therefore be understood at least partly in the context of these processes of modeling and contagion.

In addition to these contagion effects by which one suicide becomes a compelling model for successive acts, there is simply the mere familiarity and acceptance of the *idea* of suicide. Suicide ideation among adolescents appears widespread in certain Micronesian communities, and is popularly expressed in recent songs composed locally and aired on Micronesian radio stations, and in graffiti adorning t-shirts and high school walls. A number of young boys who attempted suicide reported that they first saw or heard about it when they were 8 or 10 years old. Their suicide attempts appear in the spirit of imitative or experimental play. One 11-year-old boy, for example, hanged himself inside his house and when found he was already unconscious and his tongue protruding. He later explained during an interview that he wanted to 'try out' hanging. He said that he did not want to die, although he knew he was risking death. Such cases of imitative suicide attempts by boys as young as 5 and 6 have been reported recently from Truk. Several cases of young adolescent suicide deaths recently in Micronesia were evidently the outcome of such 'experiments'. Thus as suicide grows more frequent in these communities, the idea itself acquires a certain familiarity if not fascination to young men, and the lethality of the act seems to be trivialized. Especially among some younger boys, the suicide acts appear to have acquired an experimental, almost recreational element.

All of these findings—of temporal clustering, inter-group variation in the distinctive themes associated with suicide, of suicide pacts and linkages among individual cases, and of suicide ideation and curiosity common among contemporary Micronesian adolescents—demonstrate the recent development among Micronesian young men of a 'suicide subculture', i.e. a set of coherent meanings which organize, provide significance for, and contribute to the dynamics and frequency of adolescent suicides in Micronesia. During the past 20 years, suicide has become a strikingly familiar and increasingly frequent option within Micronesia, and currently appears as a culturally patterned and partly collective response by Micronesian young men to their characteristic personal dilemmas and problems.

CONCLUSIONS AND CONTINUING RESEARCH

Cultural-epidemiological survey research in Micronesia has confirmed an epidemic-like increase and unusually high incidence of suicide among young men, which has developed during the post-1960 years. In addition to the characteristic age-sex focus, the sui-

cide phenomenon also evidences distinctive patterning in the precipitating events, in the details of methods, and in the motives attributed to the acts. The seeming triviality of the typical events that Micronesians ascribe as triggers for the suicide acts raises a central paradox in interpreting this phenomenon. The paradox lies in the apparent imbalance between the manifest insignificance of the precipitating event on the one hand, and on the other hand the gravity of the act itself. To reconcile this seeming imbalance, the discussion here has pursued two lines of tentative analysis. First, the precipitating events need to be understood in the context of contemporary adolescence in Micronesia. As suggested here, the developmental period from sexual maturity to marriage is a period of structural insecurity for males and of cultural conflict with their parents. These conflicts are exacerbated by the recent loss of traditional village-level supports for male adolescents, and by the rapid post-war cultural changes in Micronesia. Hence, the seemingly minor triggering events for suicides may be indicative of much more severe and prolonged adolescent-parent discord and tension.

Secondly, on the other side of the balance, the gravity of the suicide act itself must be judged with regard to the cultural meanings that define and give local significance to the act of suicide. Single instances of suicide among Micronesian youth have propagated fad-like imitative or modeled acts. Thus the self-destructed acts have a feedback potential among the adolescent subculture; the significance of the act acquires an aspect of collective identification and familiarity, making it less aversive to troubled youth.

Confirming the validity of these tentative conclusions, as well as extending their applicability and depth, will require intensive ethnographic follow-up research. It is necessary to have broader descriptive material on the structural situations for contemporary Micronesian adolescents—their personal networks and range of activities and routines—and to have detailed assessments of adolescent-parent relationships, and situational analyses of typical problematic events for adolescents. Secondly, more individualized data on adolescent self-image and self-esteem are required, in order to evaluate the degree to which the adolescent critical period of high suicide risk is embedded in a stage of problematic social roles and disrupted self-image of island youth. These data need to be judged against culturally specific Micronesian concepts of self, and the cultural organization of self-concepts. Lastly, it is necessary to examine more closely the social meanings and typical accounts associated with suicides, since individuals draw upon and identify with these social meanings of suicide, in order to invest meaning in their own suicidal experiences and motivations. Special attention needs to be given to aspects of social meanings of Micronesian suicides (e.g. as a 'cry for help' or 'show of strength') that might either facilitate or frustrate preventionist strategies. We are now undertaking a research project designed to produce data on these issues [5].

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34. The absence of lineage-house organizations traditionally in the Marshall Islands suggests that the explanatory model being proposed in this paper may be more applicable to the Truk situation than to the Marshalls. Given the cultural variations within the Micronesian area it is likely that somewhat different psychological conflicts and family dynamics may underlie the suicides in different parts of Micronesia. Thus the tentative analysis presented in this paper may require further expansion, to reflect more closely the cultural specifics of different Micronesian areas. Towards this end, it would be useful to explore the contrasting aspects between the culturally-patterned themes in Trukese and Marshallese suicides. For example, while Trukese suicides appear imbedded largely in inter-generational family conflicts and authority-dependency issues, those of the Marshalls seem due more to sexual jealousies and conflicts between young lovers or spouses. How these contrastive aspects of suicides relate to broader structural differences inter-culturally (e.g. presence or absence of traditional clubhouses serving adolescents) will require further ethnographic inquiry.
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