At present, assessment of sucking rhythms has been confined to research protocols, but has the potential to become part of routine neonatal clinical practice. It offers clinician and researchers the opportunity to evaluate an infant's neurologic status during the earlier stages of neonatal period resulting in more appropriate intervention for the infant at risk for developmental delays.

—Barbara Medoff-Cooper

See also Reflexes

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SUDDEN INFANT DEATH SYNDROME (SIDS)

Sudden infant death syndrome (SIDS) is the term used when the death of a healthy infant (a) occurs suddenly and unexpectedly and (b) medical and forensic investigation findings are inconclusive. Because an infant's death is diagnosed as SIDS when no other cause of death can be determined, the factors surrounding the cause of SIDS have generated a recent increase in the research and educational efforts to better understand SIDS. Although there has been a recent spike in SIDS interest, cases of infant deaths for no apparent reason—other than assumed smothering, because the infant was found in the parent's bed—have been long documented. The criteria for the diagnosis of SIDS have changed over the history of the research.

In the 1940s, for example, the leading cause of SIDS was thought to be infectious disease. In the 1960s and 1970s, SIDS conferences brought together researchers from multiple backgrounds yielding research goals and a consensus on the broad epidemiological components of SIDS. Researchers concluded that the diagnosis of SIDS is warranted only when a healthy infant unexpectedly dies and autopsy reveals no clear cause of death. In the 1980s, the definition of SIDS was again modified to include a thorough investigation of the death scene before the diagnosis could be issued.

A leading hypothesis in the medical literature suggests that infants who die from SIDS have abnormalities in the area of the brainstem responsible for regulating breathing. Other hypotheses are derived from the idea that a parent or caregiver is responsible for the suffocation of the infant. If the definition of SIDS includes intentionality, then it may be presumed that there are cases diagnosed as SIDS, when in fact the infant was murdered. Beginning in the 1980s, research indicated that (a) 2% to 10% of cases diagnosed as SIDS were in fact filicides and (b) over 50% of SIDS cases were in fact cases of physical abuse, neglect, and accident.

Due to the ambiguities of the nature of SIDS, uncovering the characteristics surrounding SIDS may appear a daunting task for researchers. With the developing research that suggests that many SIDS cases are murders, it is imperative that forensic scientists and those in the social and behavioral science focus greater effort on identifying the predictors of SIDS.

—Viviana A. Weekes-Shackelford and Todd K. Shackelford

See also Death, Infant Mortality

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SUICIDE

Human beings are remarkable for their resilience, ability to cope with adversity, and fierce will to survive; they are also unique in the animal kingdom in their propensity for self-destruction. Attempts to come to terms with this puzzle are present throughout literature, from Hamlet's soliloquy ("To be or not to be . . .") to Camus' observation that suicide constitutes "the only really serious philosophical problem."

Suicide, the intentional act of ending one's own life, accounts for more than 1 million deaths per year worldwide. As a violent cause of death exceeding war and homicide combined, it constitutes a major public health problem, yet is regarded as one of the top preventable causes of death. Suicide is observed in all societies, across geographic and historical locales, although its meaning and frequency differ considerably from one place to another.

HISTORY

Suicide has been documented throughout recorded history. As early as the third millennium BC, Egyptian history reveals accounts of completed suicides, suicide notes, and even suicide threats to obtain sympathetic treatment. Historian Flavius Josephus wrote extensively about suicide, documenting individual and mass suicides between 1500 BC and 73 AD. Among these was the famous incident at Masada, wherein 960 soldiers killed themselves rather than face defeat and possible capture by the Romans.

Attitudes about suicide have varied through the ages, from neutral tolerance or implicit approval to total condemnation. Ancient Egyptians, because they saw death only as passage to another state of being, viewed suicide rather neutrally, whereas the Romans considered suicide an appropriate and honorable means of avoiding defeat or humiliation. At the opposite end of the spectrum were the ancient Judaic prohibitions against suicide. Elements of this prohibition survive to this day in contemporary Judaism, Christianity, and Islam, although views have softened somewhat in modern times. For example, the Catholic Church now teaches that, rather than being condemned to eternal damnation, people who kill themselves are likely suffering from an illness and are therefore unable to make a truly free choice.

SUICIDE SCIENCE

Modern theorists generally consider suicide as part of a collection of suicidal behaviors, including suicidal ideation (contemplating suicide without taking action), suicide attempts (engaging in self-harming behaviors that do not result in death), and suicide (intentional, self-inflicted death, sometimes referred to as suicide completion). The term *suicide attempt* is problematic because intentional self-harm is not always intended to end life, but may serve a communication function such as a "cry for help." For this reason, such behavior is sometimes referred to as deliberate self-harm or parasuicide.

In the United States, suicide consistently ranks among the top 10 causes of death, taking nearly 30,000 lives per year. The suicide rate in the United States has seen a slight, steady decline in recent years, from about 12 per 100,000 population per year through the 1980s and early 1990s to 10.8 per 100,000 per year in 2001. Suicide rates are strongly and consistently associated with an assortment of population characteristics, including sex, race, age, and geographic location. Although females make suicide attempts two to three times as often as males, fully 80% of deaths by suicide are males. Whites commit suicide more often than any other racial group, accounting for more than 90% of all suicides in the United States. African-Americans commit suicide at only half the rate of Whites.

The age group at greatest risk for suicide is the elderly, with suicide risk rising sharply after age 65 (this mainly reflects high rates of suicide among elderly males). The suicide rate for adolescents has risen sharply in recent decades, to the point that teenagers now commit suicide at a rate comparable with that of the general population. Suicide rates vary sharply from state to state and region to region, with the highest rates generally appearing in the Rocky Mountain states and the lowest rates in the Northeast.

Suicide is also a leading cause of death internationally, with gradually rising rates in recent years. Male suicide rates are much higher than female rates