Background:-Hemodialysis is the most common method of dialysis. Hemodialysis is used for patients who are acute ill and require short-term dialysis (days to weeks) and for patients with End stage renal disease (ESRD) who require long-term or permanent therapy. A dialyzer (also referred to as an artificial kidney serves as a synthetic semi permeable membrane, replacing the renal glomeruli and tubules as the filter for the impaired kidneys. For patients with chronic renal failure, hemodialysis prevents death, although it does not cure renal disease and does not compensate for the loss of endocrine or metabolic activities of the kidneys. Treatment usually occurs three times a week for 3 to 4 hours per treatment. Patients receive chronic or maintenance dialysis when they require dialysis therapy for survival and control of uremic symptoms. The trend in managing End stage renal disease (ESRD) is to initiate treatment before the signs and symptom associated with uremia become severe.

Methods:-A descriptive study was carried out of Baghdad Teaching Hospital and Surgical Specialties Teaching Hospital from 6\4\2010 to 1\7\2011. A purposive "non- probability" sample of (50) patient with hemodialysis with criteria of the sample (adult patients and 18 years and above).questionnaire form was constructed for the purpose of the study.

Data were collected through the application of the questionnaire and interview technique. Validity of questionnaire was response through panel of (10) experts. Test- Retest reliability was determined through a computation of Pearson Correlations for the health problems assessment of depression scales (r=0.86).

Data were analyzed through descriptive statistical approach (frequency, percentage and mean of score0 and inferential statistical approach (chi-square, and correlation coefficient).

Results:-The findings of the study had revealed that most of patients with hemodialysis has mean age were (47.2) years and most of them from group (48-58) years (26%) and were males (64%) living in urban residence (94%), and they were married (88%). Most of them no read and write (22%) in the level of education with retired occupation (36%) and then barely sufficient (50%) for monthly income in spite of living in ownership house (78%).

Conclusions:-The study concluded that most of the study sample who suffering from depression were (middle age, males, married, secondary graduate, housewives, urban residence, and live in renter house). Although all the items of depression scale among moderate and high severity. The study concluded that there is a significant association at (P≤ 0.05) between depression and educational level only